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NORTHWEST MEDICINE

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VOL. I

JANUARY TO DECEMBER, 1903

PUBLISHED BY THE
Washington Medical Library Association
SEATTLE, WASH.

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NORTHWEST MEDICINE.

January, 1903.

ORIGINAL CONTRIBUTIONS.

THE ETIOLOGY OF ECLAMPSIA.

By J. Clarence Webster, M. D.,

CHICAGO, ILL.

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There has been much discussion as to the nature and causation of eclampsia and during the second half of the nineteenth century many views were advanced to explain its phenomena. When Rayer of Paris in 1840 and Lever of London in 1843 pointed out the frequency of albuminuria in eclampsia, the impression gradually gained ground that disturbed renal function associated with imperfect elimination of poisonous material caused the disease. It was held by some that the urea was the noxious element.

In 1851 Frierichs pointed out the resemblance between the phenomena of eclampsia and those of the uremic convulsions of Bright's disease and held that the conditions were identical. He was supported by Wieger and Braun, especially by the latter, whose text-book published in 1857 did much to make this view popular. Frierichs believed that the cause of the poisoning was a decomposition product of urea, viz., ammonium carbonate. The uremic origin of eclampsia has been denied by many, and has been widely abandoned since it has been shown that eclamptic phenomena may occur without albuminuria; that in the great majority of cases there has been no previous renal disease, that the renal changes which may be found are not constant and definite, but very variable, and often very slight; that the albuminuria frequently appears after the convulsions begin; that the clinical phenomena of eclampsia are not often found in cases of chronic Bright's disease.

As regards the influence of impaired urinary excretion. Cornil and Ranvier pointed out the rarity of uremic convulsions in women suffering from those noted by Schmorl and others, who state that these may be primary or embolic, being found both in veins and arteries. He thinks that the toxic with eclampsia. The thrombi described by Klebs are probably the same as

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uterine cancer which interfered with the ureters, even where the latter were dilatd and hydronephrosis was present. Seyfert reported over 70 cases of pregnancy in women with chronic Bright's disease in which convulsions occurred only in two. Hofmeier has reported 46 cases, in one-third of which there was eclampsia. Bamberger found 23 cases of eclamptic convulsions in 152 pregnant and puerperal women with chronic Bright's disease. As regards Frierichs' theory it was pointed out by several workers that ammonium carbonate could not be found in the blood of eclamptics.

Traube advanced the view, modified by Rosenstein and supported by Munk, that cerebral anemia and edema was produced as the result of increased blood-pressure and hydremia of the blood, the former being aggregated by labor pains and the latter by the loss of albumen in the urine. Spiegelberg opposed this theory stating that hydremia and increased pressure cannot cause cerebral anemia. and that hydremia is not a special feature of eclampsia. Johann Veit thought that these factors were probably the cause in cases of renal insufficiency, chlorosis also probably being a predisposing cause of eclampsia. Answering the criticism that cerebral edema has been rarely found in eclampsia, Veit states that this condition may rapidly pass away. Bartels regards the cerebral edema as a result of eclampsia. Olshausen found cerebral hyperemia more frequently than anemia, and observed no edema in many cases. He noted one case in which death occurred after 104 convulsions, the brain being so dry that on being cut, it appeared more like sclerosed than edematous tissue. He also emphasized the frequency of fits apart from labor and therefore from the influence of increased blood pressure caused by pains. Falk has experimented on animals and has found it necessary to introduce enormous quantities of water (122 grms per kilo of weight) in order to cause convulsions; in such cases the brain was usually congested and not edematous or anemic.

Angus Macdonald stated in 1878 that anemia of the brain substance was the essential cause of convulsions. In two fatal cases, this was found though the meninges were congested, the ventricles containing serum. He believed that the anemia was primarily due to excrementitious matter in the blood stimulating the vaso-motor center or setting up a sub-acute inflammation about it, whereby contraction of the arteries was brought about. The poisonous matter in the blood he believed to be due to altered renal function. Spiegelberg held that eclampsia was due to cerebral anemia and to poisoning resulting from altered renal function. The latter he believed to depend mainly upon disturbances in the kidney circulation, which might in some cases rapidly disappear after death. He thought that the change might be of the nature of spasm of the smallest vessels. which interfered with excretion and might lead to destruction of the epithelium if it continued long enough. He suggested that the vaso-motor irritation might also affect the cerebral vessels. the source of the irritation probably being the uterus, this irritability being greater in primiparae and in cases where the uterus is much enlarged. In emphasizing the part played by peripheral irritation he pointed out that convulsions might frequently be induced in eclamptics in the third stage by uterine manipulations; the peripheral irritation caused by the uterus in pregnancy being aggravated during labor. Those who believe in the importance of cerebral anemia point to such experiments as those of Kussmaul and Tenner in which the carotids are tied or the animals bled from the neck, slight convulsions being produced.

In 1882 Halbertsma criticised the former views and stated that eclampsia is due to the influence of increased intra-abdominal pressure caused by the growing pregnant uterus, interfering primarily with the ureters and secondarily with the kidneys. He held that the special tendency to the occurrence of eclampsia in primiparæ, hydramnios, multiple gestation, contracted pelvis, in all of which conditions there is excessive pressure, strengthens his views. Ries, holding somewhat similar ideas, believes that in some cases compression of the ureters by the presenting part of the fetus is the most important factor.

These views have not been accepted by most authorities. Halbertsma's statement that dilatation of the ureters is frequent in such cases has not been corroborated. Olshausen found dilatation only seven times in 37 autopsies. He and Stadtfield have pointed out that the ureters are sometimes dilated in non-eclampic puerperal women. Thus in 25 such cases 12 presented unilateral dilatation, and 4 bilateral. From a careful study of topographical relationships in the pregnant and parturient women, it must be admitted that ureteric compression may in some cases be a factor in the determination of an eclamptic seizure, but there is no proof that it is the *fons et origo* of the disease in many cases.

Stumpf in studying two eclamptic cases in 1886, commented on the resemblance of the liver changes to those found in acute yellow atrophy, which suggested to him the idea of acute poisoning by material circulating in the blood. As leucin and tyrosin were found in the liver and met-hemaglobin in the blood, Stumpf concluded that the poison was some non-nitrogenous body produced within the organism, and he was inclined to regard it as acetone or aceto-acetic acid, which he had detected in the expired air and urine of eclamptics. This poison, he stated, irritates the kidneys, decomposes hemoglobin, affects the liver and causes convulsions and coma. Stumpf thought that the poison might be developed in the fetus, because the latter is sometimes in a state of *rigor mortis* in eclampsia and because its death or removal often causes cessation of the convulsions. In reference to Stumpf's views it is to be said that acetone is not always present in eclampsia nor the fetus in a state of *rigor mortis.* Moreover, the latter condition may be found apart from eclampsia. In cases in which the convulsions develop after labor, the influence of the fetus is absent.

Duehrssen states that acetone is a result, not a cause of eclampsia, and is due to blood-dissolution and anesthesia. Wiener holds that it may be formed from biliary products not excreted.

As to the part played by the living fetus, various other authorities also hold that it may be a source of the poison of eclampsia, that the convulsions may cease when it dies, that albuminuria and edema may also disappear at the same time. There may, however, be no such disappearance. Further, several cases have been described in which eclamptic convulsions have ceased in pregnancy, the fetus remaining alive, the woman continuing normally afterwards to full time.

Klebs advanced the suggestion that thrombi formed of liver cells displaced by pressure on the liver in pregnancy and labor might have something to do agent which causes the coagulation probably induces eclampsia, and suggested that it is a ferment, possibly related to the placenta. There is little doubt that the cell-emboli noted by these observers are derived from the fetal chorionic epiblast (syncytium and Langhans layer). It is known that they pass into the circulation normally in pregnancy but there is no proof that they exercise any deleterious effect save when they occur in the malignant condition known as *deciduoma malignum*. Lubarsch while admitting that these emboli may usually be placental in origin states that in some cases they arise from the liver.

Within recent years the view has gradually gained ground that the most important factor in the production of eclampsia is auto-intoxication, the poisons resulting from various sources within the material and fetal organisms.

These poisons may be derived from the effete products of metabolism throughout the body, a marked increase in the latter occurring in pregnancy. In the alimentary canal they may be taken in food or drink and may enter from the bile passages, but are mainly formed in the process of digestion and by intestinal decomposition. The emunctories continually get rid of these noxious products as they enter the circulation. The liver in particular exercises a destructive influence on them, especially on those which may enter from the alimentary canal by the portal vein. The thyroid and parathyroids are also believed to counteract the influence of toxic material. The kidneys also exercise a very important part in elimination. When the function of the liver is interfered with greater work is thrown on the kidneys. Various efforts have been made to detect the most important poisons, but without success.

These views in recent times owe their inception to the speculations of Bouchard, first expressed in 1887 in his *"Lecons sur les Auto-Intoxications."* He stated that health depends on a proper adjustment between the production and excretion of toxic substances, increase of the former or diminution of the latter leading to toxemia or auto-intoxication. He considered that the excretions, especially the urine, might serve as an index to the toxicity of the blood and tissues. When toxic agents are freely eliminated a lower degree of blood-toxicity may be expected than when the excretion is low. Increased production of toxins might raise the toxicity of the blood and urine even if the excretory functions be normal.

The attempts made by Bouchard and his followers to establish the truth of these by experiment have been unsatisfactory, and in some cases have been very faulty and misleading. Thus, in injecting urine into the circulation of rabbits, Bouchard took no precautions to obtain uncontaminated urine. In many instances it was allowed to become altered by micro-organisms. Moreover, the urine was injected much below the temperature of the animal's blood. Nor was sufficient importance given to the influence likely to be exerted by the fluids of one animal on those of another class. The urotoxic coefficient, therefore, established by such experiments, is absolutely unreliable.

Tarnier was the first to study pregnancy in the light of Bouchard's theories. In 1890 he stated that the urotoxic dose from the pregnant woman's urine is greater than the normal urotoxic dose of the healthy non-pregnant adult, estimated by Bouchard, or, in other words, he found the toxicity of the urine to be diminished in pregnancy. Chambrelent and Demont in 1892 made a similar statement; but their experiments revealed such variation as to make their findings quite unreliable. Goria in the same year gave an account of cases studied during and after labor. He used warm sterile neutral urine and found that its toxicity was very much lower than that mentioned by the other workers. As Eden points out, the diminution was probably largely due to his care in preparing the urine. Blanc, in 1893, studied a number of pregnant and puerperal women. He used warm, filtered urine, free from albumin and neutralised with soda and found that its toxicity was higher than that obtained by Goria. His urine was not sterilized, however, and this probably made some difference. Both Goria and Blanc noted an increase in toxicity after labor was finished.

In further experiments Blanc reached a different conclusion, viz.: that the toxicity of the urine is not diminished in pregnancy. Labadie-Lagrave made experiments and stated that the toxicity of the urine diminished during the first three months, remaining stationary afterwards. In 1895 Ludwig and Savor published an account of their experiments with the urine of normal and eclamatic pregnant women. The fluid was not sterilized, but was kept on ice until used. They found the toxicity a little lower than that described by Bouchard, for the non-pregnant adult. In the eclamptics they found great variations, but stated that the average urotoxic dose was lowered during the convulsive stage, and raised afterwards. Tarnier and Chambrelent in their experiments, found that the toxicity of the urine in eclampsia is extremely low, and accounted for this by supposing that there was an accumulation of toxic matters in the blood. The statements of these workers differ considerably from those of Ludwig and Savor.

Volhard in 1897 found considerable differences in the toxicity of urine from pregnant women. He noted that the urotoxic dose was increased by boiling, probably due to the sterilization. He found differences according to the rate of injection into the animal's circulation. He found the urotoxic dose of urine from the non-pregnant adult considerably higher than that mentioned by Bouchard. In experimenting with urine from eclamptics, he obtained results from which no conclusion could be derived.

Schumacher in 1901 published an account of some careful experiments made in Fehling's Clinic. He first showed that normal saline solution introduced into the jugular vein of the rabbit produced negative results. As the strength of the solution increased its toxicity increased. He found that the urine of women in the non-pregnant state, in pregnancy, and in labor, *possessing an equal density,* have the same toxicity; that albumen does not increase the toxicity, that if the extreme toxicity is found in eclampsia or albuminaria, it is due to increased density of the fluid. He found that reduction of the density to that of normal urine practically reduced the toxicity correspondingly. Schumacher points out the difficulties of experimentation, and draws attention to the factors likely to introduce error.

Stewart in 1897 described a series of observations regarding the urine of pregnant and parturient women. He used sterile and non-sterile specimens and injected the fluid into the peritoneal cavity of animals, careful bacteriological examination being made. His conclusions were as follows:

1. Urine passed naturally contains a convulsive poison lethal to rabbits and mice.

2. Urine drawn by catheter under strict asepsis and boiled at once is harmless.

3. If stale unboiled urine be used the toxicity rises rapidly with the age of the specimen.

4. All specimens of fresh urine which caused death contained micro-organisms at the time of the injection.

When injected animals died, septic injection was the cause. Stewart's work greatly discredits the results of the experiments carried on by those who have failed to estimate the influence or micro-organisms contaminating the urine.

Various workers have tried to test the toxicity of the blood. Rummo and others have shown that normal blood is toxic for different animals when injected into the circulation, and have stated that it is more toxic in diseased conditions. Doleris and Butte in 1886 separated from the blood of eclamptics a crystalline inorganic substance, which injected under the skin of various animals caused death with convulsions.

Tarnier and Chambrelent in 1890 used the blood-serum of eclamptics, obtained without care as to asepsis, and decided that it was more toxic than normal serum. Ludwig and Savor reached a similar conclusion. Charrion, about the same time, stated that he found it to be less toxic. Volhard's results were somewhat similar. In 1894 Mavret and Bosc endeavored to establish the standard toxicity of normal serum, and concluded that intra-venous injection is an unsuitable method. They found that removal of the coagulable elements greatly reduced the toxicity.

Herter states that the percentage of urea in the blood is not necessarily increased during the fits. Butte, however, says that in bad cases it is increased, owing to impairment of the liver.

Schumacher has also experimented with blood-serum, but has not been able to establish any difference in toxicity between the serum of normal parturient women and those with eclampsia or nephritis. He states that the degree of the disease has no effect on the degree of toxicity of the urine. The amniotic fluid and the serum of the fetus are not more toxic than in normal cases. Comparing the action of urine and blood-serum, he states that the former acts simply as a salt solution, its action varying according to its concentration.

With blood-serum it is otherwise, for on adding distilled water its toxicity is reduced only according to the amount of dilution, i. e., a dose of equal parts of serum and water equals in toxicity that produced by the amount of serum alone not diluted, whereas urine diluted in the same proportion has no effect at all. The serum acts in virtue of toxic material contained in it.

In reference to the various experiments with blood, Eden says that, unless separate definite toxic bodies can be obtained from it, experimentation along the lines employed in the past is certain to be vitiated by serious sources of error. Indeed, the value of these experiments is very doubtful as a test of toxicity, when it is found that the animals are often killed by coagula produced in the heart and blood vessels, not by poisoning, whether normal or eclamptic blood-serum is used. They show, in reality, only a difference in the power of producing coagulation. When the serum is injected under the skin, or into the peritoneum, much larger quantities are required to produce death. Thus, Bar found that 20 c. c. per kilo could be injected subcutaneously into a rabbit without fatal results, when an intra-venous dose of 3 c. c. would cause death.

Recently efforts have also been made to prove by experiments that renal elimination is diminished in pregnancy, especially in eclampsia. Inert coloring matter is introduced into the body and the interval which elapses before it appears in the urine noted; also, the rate and regularity with which elimination continues and is completed. The results are inconclusive.

In the endeavor to determine the nature of the toxic agents, experiments have been made with substances known to result from body metabolism. Thus Landois induced convulsions and coma by exposing the anterior and lateral cerebral convolutions and applying creatin, creatinin, dried urinary sediment, sodium and potassium phosphates and other bodies. Several workers have regarded the potassium salts as important toxic agents in uremia and eclampsia.

Since the publication by Dœderlin of the results of bacteriologic examinations in cases of eclampsia, many authors have thought that this disease might be due to micro-organisms. Since May, 1898, Levinowitsch has made systematic bacteriologic examinations of the blood in eclampsia, with the following results: In fresh blood from 44 cases, large, regular cocci of round and oval forms were found which showed extraordinary activity, the round forms being smaller than the oval ones; the cocci were often arranged in pairs. In 28 cases the eclamptic blood was placed in bouillon, gelatin and agar, and 25 times a complete culture was obtained; the micrococcus flourished at the normal body temperature, and on such media as placental tissue. In three or four days the culture showed large oval cocci, arranged in twos or fours and exhibited extreme mobility. The micrococcus was stained by the aniline dyes and cilia were demonstrated. Old cultures showed curiously altered forms with many oval ones of considerable size. Some cocci had a central stained portion (spore); one form had a long thread-like attachment which moved as a tail; another variety was shaped like a dumb-bell. These cocci were mostly found in blood taken during the first seizure, but blood was also examined within two days after the last attack, when the involuted forms with the central uncolored portion were found.

The micrococcus was pathologic to guinea pigs in 28-30 days after subcutaneous injection of the clear culture, acute anemia was produced, following hemorrhagic endometritis; in one case of injection of the clear culture in a dog, transient convulsive attacks were observed in the muscles of the vagina.

In one case the same coccus was found in the blood of the newborn child of an eclamptic mother; in two cases, attacks of eclampsia were observed in the unborn infants. In the blood both of pregnant women and those at term who had had no typical eclampsia, but had nevertheless suffered from headache, edema, vomiting, etc., the same micrococci were found in small numbers. The dumb-bell form appeared sometimes in the mono- and polynuclear leucocytes, where they could be distinctly seen when a fresh blood specimen is examined.

H. Mueller and Albert have advanced the view that eclampsia is a general intoxication due to the action of bacteria within and the resorption of their products from the uterine cavity. In pregnancy the bacteria are believed to lie latent during the early months before the convulsions begin.

Stroganoff has urged the infective nature of the disease for the following reasons: It is a wide-spread affection in obtaining many organs; it develops acutely; the fever accompanying it, especially the post-mortem thermic elevation, is peculiar to infective disease; one attack appears to confer immunity; the disease is more common in populous centers.

In conclusion, it must be admitted that while many observations have been made in eclampsia, very little has followed the attempts to analyse these and to arrange them in their proper relationship to the disease. No certain cause has been definitely established. It is probable that different etiological factors are associated in the production of the fits. In some cases many of these may be combined; in others few. Sometimes one factor may be very prominent and the others of little account. No scientific classification of the various combinations can be made. The factors may be referred to generally as follows:

Of great importance are toxic agents circulating in the blood, derived from sources already mentioned. They are probably most active in the gravest cases of eclampsia. They affect various tissues differently in different cases. They are probably responsible for most of the degenerations found in the liver and kidneys. Impaired action of the emunctories, especially of the kidneys, plays a role in some cases by interfering with the elimination of circulating toxic agents. Therefore, pressure on the ureters and kidneys, the kidney of pregnancy, nephritis and reflexly induced renal anemia may occasionally play a part. Faulty elimination by the bowel is probably not infrequently a cause of retention of toxic matter. Another factor is nervous and physical irritability or excitability. In some cases this may determine the onset of an attack. Some authors think there is a special type of nervous organization in which there is a particular liability to disturbance. It is widely believed that in eclamptic cases in which the kidney or liver changes are slight, the attacks are due to the influence of circulating poisons on abnormally irritable cortical psycho-motor centers and sub-cortical ganglia.

Von Herff thinks that there is little difference between the phenomena of epileptic, uremic and eclamptic attacks, and that all are due to the influence of different causes acting on these centers.

Recently Nicholson, of Edinburgh, has suggested that some cases of eclampsia might be related to inadequacy of the typhoid and parathyroid glands. He refers to Lange's 25 cases of pregnancy, in which normal hypertrophy of the thyroid did not occur, and in which albuminuria, and sometimes eclampsia developed. Others have also noted that the thyroid is frequently small in eclampsia. The thyroid is one of the organs closely related to metabolism, iodothyrin being an essential to the organism. In cases of absent or small thyroid, there is faulty metabolism and impaired excretion. Iodothyrin administration stimulates metabolism and increases the excretion of urea. Nicholson regards eclampsia as the result of some failure in the process of proteid metabolism associated with a deficiency of iodothyrin, or to impaired activity of the secretion, though the liver and other "defense organs" may also be at fault. He points out that the phenomena of an eclamptic attack resemble those following experimental removal of the whole thyroid system in animals. He thinks that the thyroid may be given a primary role in the causation of eclampsia.

Spasms of the renal vessels tends to occur when the influence of the thyroid is diminished. (perhaps aided by the action of the suprarenal secretion which contracts the arteries). He uregs the use of fresh iodothyrin or thyroid extract both in the pre-eclamptic and eclamptic condition, even to the point of causing thyroidism in which state vessels are fully relaxed. Activity of the skin and kidneys are thereby promoted, though with considerable variations in different cases. Thyroid extract may have some specific action in rendering certain toxic substances harmless. It is stated, for example, that the parathyroids normally render entero-toxins innocuous. Morphia is regarded by Nicholson as a valuable adjunct to the thyroid extract.

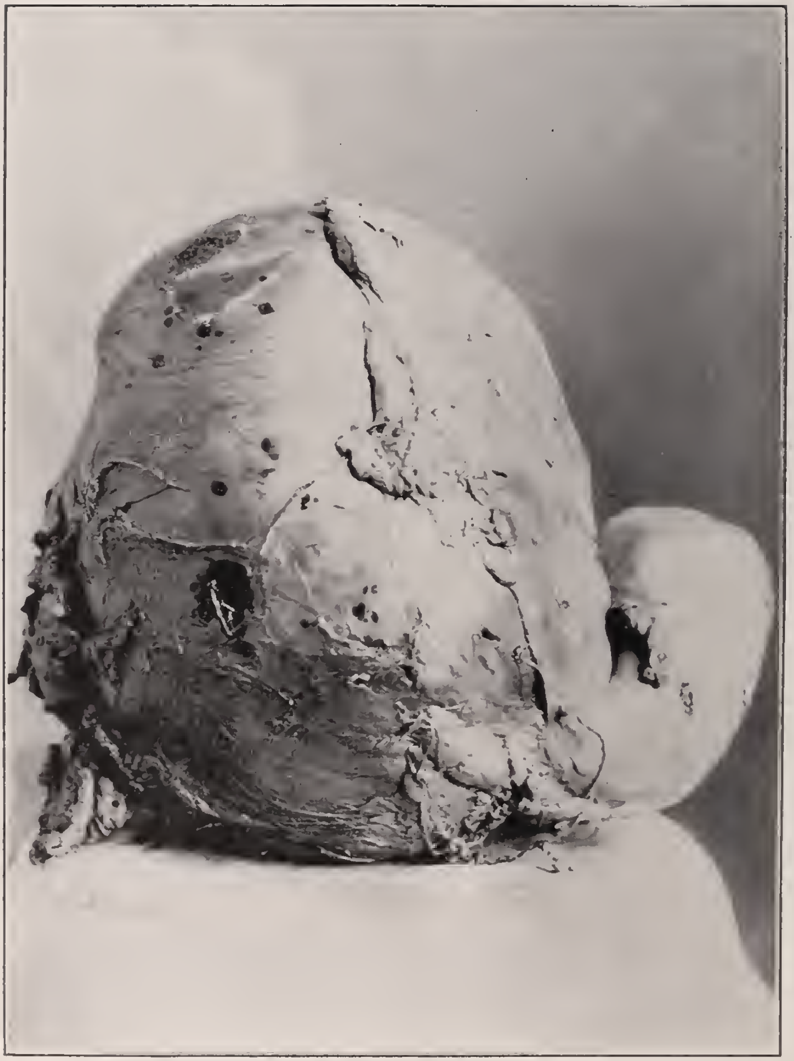

Fig. 1. HYPERNEPHROMA. (Reduced one-half.)

TWO RARE FORMS OF TUMOR OF THE KIDNEY.

I. HYPERNEPHROMA—NEPHRECTOMY.

By J. W. Bean, M. D.,
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ELLENSBURG, WASH.

Mrs. M. S. White, aged 42, residence Helix, Oregon, first came under my care September 16, 1902, complaining of lumb in left side of abdomen. Family and personal history negative. First noticed lump in side about six months previously. At this time consulted a physician, who pronounced her trouble movable kidney. She came to me to have nephropexy performed. For a few days previous to the first discovery of the tumor had some lameness and pain in left side, which was attributed to overwork. From this time until date of my first seeing her the tumor had gradually increased in size, was slightly tender, and at times very painful. For past month her general health has become quite poor and she has lost several pounds in weight. Was weak and easily tired, and was not able to do much, if any, of her housework.

Physical examination shows a well developed woman, thin in flesh, with dry skin and marked cachectic appearance. Pulse 80, temperature 99. Heart and lungs normal. An abdominal tumor situated in region of left kidney can be easily outlined, and approximately five by six inches in size. The tumor is ovoid, smooth and has the feeling of a tense cyst with rather indistinct fluctuation. It extends from the lower border of the ribs to below level of spine of ilium and from flank, to one and one-half inches to right of median line of abdomen. It is uniformly dull on percussion and merges into dullness of left lobe of liver. Spleen could not be outlined. Moves with respiration, can be slightly displaced downward and to the right, but not upward. Examination of urine shows nothing abnormal. Specific gravity 1022. Reaction acid. No albumen, sugar, pus or blood and no casts. Diagnosis, cystic tumor of left kidney.

Nephrectomy was performed at my sanitorium, September 18th, 1902. A seven-inch incision was made in the left semilunar line, Langenbuchs incision, extending from the lower border of the ribs to the level of the anterior superior spine of the ilium. The outer layer of the meso-colon incised and the tumor removed without special difficulty. Before ligating the pedicle it was clamped with strong artery forceps and the tumor removed. This procedure made the ligation of the pedicle a simple matter. Drainage was established through a stab wound in the flank and the abdominal incision closed without drainage. Patient left the operating room in good condition.

Free bowel movements were secured at the end of thirty hours. The slight nausea from the anaesthetic passed away at this time and the patient looked and felt well. Forty ounces of pale, watery looking urine were passed during the first twenty-four hours: the second twenty-four hours amount of urine voided, 29 ounces: patient still feeling well and taking plenty of liquid nourishment. Maximum temperature 99 degrees, highest pulse, 104. During the third twenty-four hours only 21 ounces of urine, not feeling quite so well, at times nauseated, and somewhat nervous and restless. Does not care for nourishment. Free bowel movement, and passing gas freely. No abdominal disturbance or tenderness. During the latter part of the day occasional attacks of hiccoughs accompanied with slight emesis. Highest temperature, 99.2; highest pulse, 90. On fourth day very nervous and restless; troubled almost constantly with hiccoughs and frequent brownish emesis. Only six ounces of urine were passed, containing large amounts of albumen and blood and numerous epithelial and blood casts. From this time until her death, on the fourteenth day, patient suffered severely from uraemia. There was no distinct convulsions, but at times severe muscular twitchings. The amount of urine secreted varied from one and one-half to eight ounces a day, in spite of oft-repeated hypodermoclysis, caffeine, digitalis, acetate of potassium, etc., etc. The hiccoughs were almost constant, and vomiting very frequent. During the last week became quite dropsical, and suffered from constant delirium. During the last three or four days had a most profuse, offensive diarrhoea, with involuntary discharges, that made the care of her most trying to the nurses.

The right kidney was examined while the abdomen was opened, and was apparently free from disease. I say apparently free from disease advisedly, for I realize the impossibility of judging as to its condition from such an examination. There probably was an antecedent disease of this kidney that was not recognized before the operation, making this organ less resistant to the irritating effects of chloroform, the anaesthetic used; for, in the absence of other more palpable causes, I am inclined to attribute the acute nephritis to the anaesthetic. The drainage was removed on the fourth day, and the abdominal incision healed up *per primam*. At no time was there any abdominal distension or tenderness or any evidence of sepsis. No autopsy was held.

The external appearance of the tumor is fairly well shown in figure 1. The upper, or neoplastic growth, resembles very closely a multilacular ovarian cyst. Is very dark in color and evidently contains much blood. The surface of the tumor is slightly nodular and covered in places with portions of the fatty capsule. Numerous large and small blood vessels run in an arborrescent form over the surface of the tumor. The lower part of the mass removed resembles in shape and appearance the lower half of the normal kidney. The tumor is set in a cup-shaped depression in the kidney, slightly above the exit of the ureter. The fibrous capsule of the kidney proper uniformly covers the uninvolved portion of the kidney and the tumor. The tumor proper, measures 6¼ inches in length, and 5¾ inches in breadth. The entire mass removed weighs four pounds. A longitudinal section shows the greater part of the neoplasm to be made up of a single large cyst, filled with dark, grumous blood, and in places, near the cyst wall, with a grayish black, granular substance. Near the center of the cyst is a honeycombed mass, about the consistency of brain tissue, and stained a reddish brown. Remains of septa can be seen, showing that earlier in its development the tumor was made up of numerous smaller cysts. Laminated blood clot, easily separable into three or four layers, line the fibrous capsule of the cyst.

Microscopical examination is extremely unsatisfactory. Nearly a hundred sections were examined, but little definitely could be learned. The extensive necrosis of the cyst contents left but little tissue where any definite structure was visible, and this small amount was deeply pigmented by haemosiderin, and had in places undergone a fatty degeneration or infiltration. In places the tumor consists almost wholly of embryonic connective tissue, that is, a finely fibrillated basement substance running in many directions, in which are embedded spheroidal, fusiform and occasional branching cells, and containing many blood vessels. A typical picture of myxomatous tumors. In other places small amounts of connective tissue in wavy bundles are quite prominent. The most distinct and evidently the proper cells of the tumor are large Polyhedral and irregular ovid cells, each with a distinct and usually round nucleus. These cells are closely packed, but without any definite arrangement as to themselves or as regards connective tissue, stroma or blood vessels. These cells are about double the size of the mononuclear leucocytes, of which a few can be seen scattered among the proper cells of the tumor. The proper cells scarcely take haematoxylin stain at all, the nuclei but indifferently showing a decided scarcity of chromatin. These cells are not supported by any definite framework or connective tissue or blood vessels, as in sarcoma, although they somewhat resemble sarcomatous cells. And then, in sarcoma, fatty infiltration is not common.

The *histological structure* of this tumor conforms to no regular type, but partakes more of that of adrenal tissue than of other structures. The tumor is set in a cup-shaped depression in the upper part of the kidney, but is separated from the kidney by a well-defined fibrous partition. It is surrounded by a definite fibrous capsule, and shows no tendency to invade contiguous structures. It developed in the kidney, and while separate from it, is surrounded by the fibrous capsule of the kidney proper. Large polyhedral and irregular, ovid, mononucleated cells, arranged without any definite relation to the stroma or blood vessels, and with a marked deficiency of chromatin, are the proper cells of the tumor. Taking into consideration all these facts the tumor may safely be called hypernephroma.

In a recent article, American Gynaecology, July, 1902, Dr. Noble, in reporting a case of hypernephroma, states that this form of tumor is sufficiently rare as to be almost unknown to the majority of surgeons. Clinically, still quoted freely from Dr. Noble, it is well capsulated, rarely invades the pelvis of the kidney, and therefore rarely produces haematuria. They are very vascular, and there is a pronounced tendency to interstitial hemorrhage, leading to cyst formation. Pathologically they are believed to be due to misplaced adrenal tissue or "rests" in the kidney substance during the development process, and are usually found between the ages of 40 and 50. At times they are malignant, tending to metastasis, through the blood or lymph channels, to other organs.

II. CONGENITAL SARCOMA—NEPHRECTOMY—OPERATIVE RECOVERY.

Clara P., of North Yakima, Washington, female, aged fifteen months, born of healthy parents, was brought to me November 28th, 1902. At birth weighed ten pounds, and nothing abnormal noticed. Six weeks after birth mother first discovered a lump in the abdomen to the left of the umbilicus, but being assured it amounted to nothing, gave it but little further attention. For the first twelve months the child grew rapidly, and seemed well and strong, weighing, when a year old, 22 pounds. From this time until the date when first seen by me, the child has lost in weight and strength, was cross and fretful. The abdominal enlargement had rapidly increased in size. Four days before coming to me she was seen and examined by my friend, Dr. J. B. Burns, of North Yakima, who at once detected a large tumor filling entire left side of abdomen. He very kindly referred the case to me as to the advisability of a surgical operation.

On examination, I found a poorly nourished child, with a marked cachectic appearance, and evidently suffering constant pain. Weight, seventeen pounds. Appetite and digestion only fairly good. Bowels slightly constipated, but with tendency at times to diarrhoea. Mother had noticed nothing abnormal about her urine, unless, possibly, a frequency in urination. A large, smooth, globular, hard tumor filled the entire left side of the abdomen, pushing up the lower ribs, dipping down into the pelvis and extending three inches to the right of the median line. The tumor was only slightly movable. To the touch, it gave the impression of a hard, solid growth, and was apparently quite tender. It was attached in the region of the left kidney. The abdominal walls were thin and drawn tightly over the growth. The superficial veins of the abdominal walls were prominent. A small portion of the transverse and descending colon could be seen distended with gas, lying over the upper part of the growth. The major portion of the descending colon was crowded to the median side, and dullness on percussion was complete over the entire tumor, except over the part of the colon mentioned above. No enlarged glands could be felt, and there was no appreciable ascitic fluid. Diagnosis, congenital sarcoma of the left kidney.

The immediate dangers of the operation, as well as that of an early recurrence, were fully explained to the mother, and at her earnest solicitation nephrectomy was done at my sanitorium, November 29, 1902. A 6½-inch incision was made over the most prominent part of the tumor, 1½ inches to the left of the linea alba and extending from the costal arch to within less than an inch of Poupart's ligament. The tumor immediately presente, a portion of the transverse and descending colon lying in a V shape from right to left

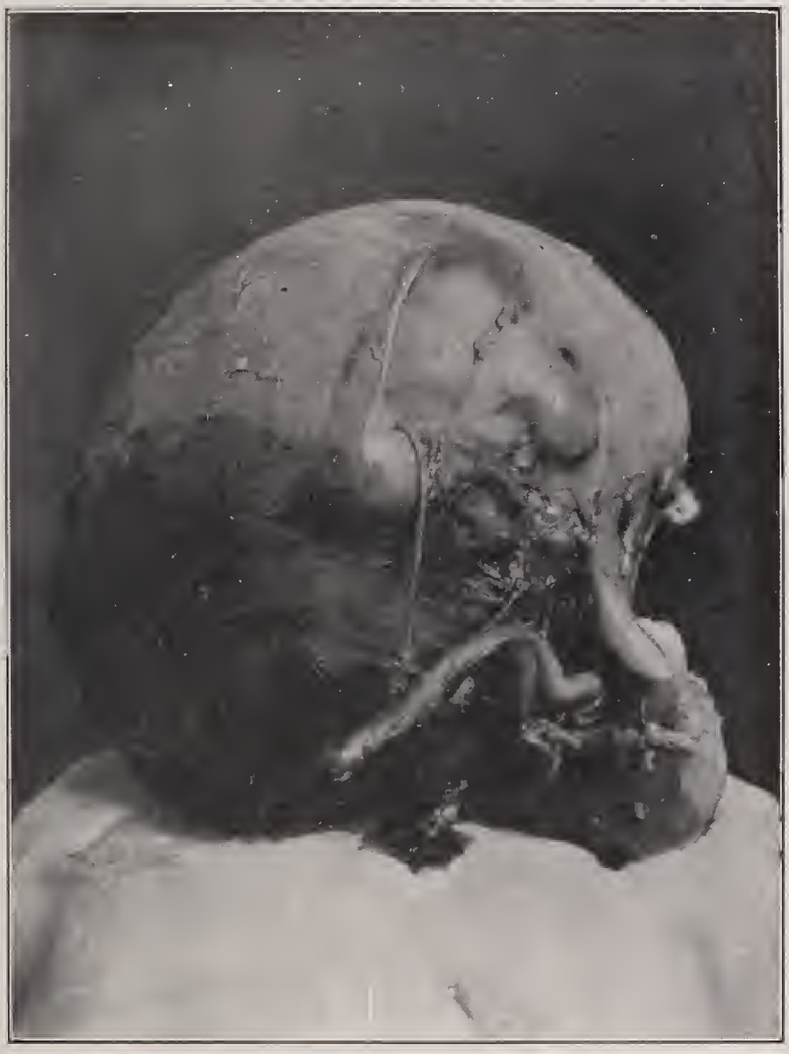

Fig. 2. CONGENITAL SARCOMA. (Reduced one-third.)

over the upper part of the growth. The meso-colon was incised parallel to the colon, about three inches externally, only one large vein requiring a ligature. Numerous large blood vessels could be seen coursing in different directions over the surface of the tumor. The peritoneum was stripped from the tumor, the colon pushed toward the right and held back with gauze pads. The tumor was easily enucleated. One large vein, the size of an ordinary lead pencil, passed backward from the tumor, requiring a ligature. The vein and artery of the pedicle were easily separated from the ureter but, on account of the size of the growth and limited working space, could not be easily ligated; were clamped with stout, slightly curved artery forceps, and the tumor cut away. A stout silk ligature could then be easily and quickly thrown around the stump beneath the forceps and the pedicle ligated without putting any tension on these structures. I believe this method of ligating the pedicle is an improvement on the technique usually given, as it does away with the danger of tearing off the blood vessels or slipping of the ligature and the frightful hemorrhage that necessarily results from such an accident. The ureter was ligated and cut off 2½ inches from the tumor. The cavity left from the enucleation of the tumor was drained with a wick of gauze and rubber drain through a stab wound in the flank. The incised edges of the meso-colon fell together nicely, and no sutures were used. The abdominal incision was closed without drainage, with silkworm sutures. Time of operation, from beginning of anaesthetic until the patient was in bed, was forty minutes. Anaesthetic, ether. The right kidney was apparently healthy, but slightly larger than normal.

The little patient suffered no apparent shock. The gauze drain was removed in forty-eight hours, and the tube on the fifth day. On removing some sutures on the tenth day it was found a part of the incision had failed to unite, necessitating the re-introduction of four sutures. Convalescence was interrupted by a sharp attack of ilio-colitis, during the latter part of the second week, that for a few days placed her life in great jeopardy.

The tumor measures 5¼ inches in length, 4¼ in breath, 4 inches in thickness and weighs 3½ pounds. The lower half of the kidney retains its natural shape and structure, while the upper half is involved in the formation of the tumor. The tumor is well shown by figure 2. *Microscopical examination* shows it to be a small round-celled sarcoma. While no enlarged glands or other evidence of metastasis could be detected, either before or during the operation, the future health of the child will be watched with the greatest solicitude.

From my experience in this case, and review of all the available literature, I feel warranted in reaching the following conclusions.

I. That nephrectomy, for sarcoma of the kidney in young children, through the abdomen, is preferable to the lumbar incision, as giving much more room, ease of manipulation and care of the pedicle, less hemorrhage and consequently less shock.

II. That the pedicle can be ligated more rapidly and with greater security by first clamping it with strong, slightly curved artery forceps, and cutting away the tumor.

III. That the mortality of the operation should be less than 15 per cent.

IV. That the percentage of permanent cure is about 5 or 6 per cent.

V. That, since the disease is always fatal if left alone, even this small per cent. warrants an operation.

VI. That in sarcoma of the kidney, as in other malignant growths, the importance of an early diagnosis and prompt operation cannot be too strongly or persistently urged upon the profession.

PHYSICAL DEGENERACY AS A RESULT OF CHANGE OF ENVIRONMENT.*

By Ivar Janson, M. D.

SEATTLE, WASH.

The genus homo is truly the perfection of species, the culminating product of evolution as far as our knowledge extends.

In the struggle for existence he has gained, point by point, on his weaker brethren; he has outgrown them and made them his slaves; he has outdone, and drawn a gulf between them and himself.

On one side he stands in the might of his supremacy, and spreads his hands from north to south, from east to west; on the other lies all organic creation, and between them the mystery of vanished species.

What it has cost to obtain this state of supremacy, is something we can only faintly conjecture. We observe the struggles, the modifications of form to suit a change of environment; the constant survival of the fittest, and the weeding out of the weak, decrepit or ancient forms; the gradual acquirements of capacities that were wonderful indeed, thus gaining, step by step, under laws that are unalterable and seemingly cruel, but which, after all, bring perfected life out of decaying death, and finished forms out of past imperfections.

What a history it would be to trace it all back! The individual has no place in the economy of nature; only the whole or species is considered. And if best, he and his children's children are blotted out, until his imperfections no longer remain. Thus degenerates, physical or psychical, degenerates towards any weakness, are regenerated anew by a weeding out process, as it were, until the imperfections have vanished.

Again, I repeat: The individual is forgotten—the *whole* only is taken into account; and it is a matter of supreme wisdom that this is so, or the *whole* would vanish *with* the individual. In the scale of ascendancy man has gradually acquired a great toleration towards change of environment. This was an absolutely necessary acquisition, or his rule would have been confined; and other forms would have spread over the earth, who, nourished by all climates and advantages, would have gained the ascendancy.

But man is found everywhere, he is nourished by universal earth. Thus have grown his power and his capabilities, and *will grow* his possibilities.

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*Read before the King County Medical Society, Seattle, Wash.

From the ice of the Arctic zone to the torridness of the tropic deserts, is man's domain. Tolerant of great climatic changes and conditions, he flourishes in every land, in every clime; influenced, of course, by climate and other agencies as regards color of skin, stage of development, toleration towards change of environment, and similar attributes. In the temperate zone, whose conditions as regards temperature, and life features, are seemingly the most favorable towards the perfection of the species, we find the greatest toleration towards change of environment acquired. This is because civilized man, mostly inhabiting the temperate zone, has become cosmopolitan, as it were.

He flits from one land to another, even from one end of the earth to the other, exhibiting a truly marvelous degree of toleration towards his changing environments, aided, of course, by a constantly increasing knowledge of hygienic laws and of how to protect himself against harmful external influences.

Still, toleration, devoid of this knowledge, is great indeed, and a very important scale in the ladder marking the ascent of man.

Driven by hunger, lust or desire for conquest, primitive man has spread out from his limited haunts into more extensive territories. He has breathed a different air—that of the lowlands, in comparison with that of his former mountain fastnesses, perhaps, and drunk out of the sluggish rivers reeking with vegetable decomposition, in contrast to the former pure and mineral-containing springs of his home. Nomadic habits have been acquired; he has penetrated into the swampy forests and out into the deserts; the sun has broiled him by day, and by night his insufficient protection and garment have not sufficed to keep out the cold.

But still he has gone on, his trail marked by the bones of his kind; the ancestors succumbing quickly, while the young have become more and more tenacious in the succeeding generations, until, at last, the toleration has been established that has peopled the swamps and made the desert habitable.

Commerce has sprung into existence, the first step of which was, doubtless, the trading of women, and with it a great factor in furthering friendly intercourse between tribes and peoples. Its demands encouraged exploration of unknown territories and peopling of strange lands. Its costs were countless premature dead, but its gain was the benefit of the race, for again a toleration towards change of environment was established by the survival of the fittest.

To go more deeply into this matter would be interesting, indeed. To trace a history of the acquired tolerance of man towards extremes would mean a history of man's evolution in general. It has been developed according to needs, just as all man's attributes and acquirements probably have been.

As for me, I only dare to make suggestions as they present themselves to me. I make no assertions of authority. My remarks are simply the fruits of my own observations and thought. So I will hasten to the facts of the matter in hand, having but briefly touched upon certain suggestions to be remembered.

History repeats itself; so it comes that, among nations of today's cosmopolitan man, we find congregations of people whose surroundings and seclusion create conditions more akin to those of primitive man, and here we find a great diminution in the toleration towards change of environment.

In the mountainous countries of Europe certain inhabited portions are so difficult of access that they remain isolated from the stream of commerce, travel and change. Here people have lived, within confined limits, and never-varying conditions, during centuries of seclusion and sameness. Generation follows generation, a great deal of in-breeding taking place, and each generation becomes more and more wedded to the soil, as it were, dependent upon existing conditions as regards the state of the atmosphere, constituents of diet, quality of drinking water, etc.

My observations and knowledge of these conditions and people, and the effect of their transmigration into entirely different surroundings, are in the main based upon a study of the peasant and his offspring from certain mountainous parts of Norway. The conclusions arrived at will undoubtedly hold good for people living under similar secluded conditions elsewhere—portions of Ireland, Scotland, Switzerland, for instance.

In their native state, the people of whom I speak usually attain a high state of physical perfection. The lymphatic temperament prevails, with fair skins, blue eyes and light hair. The girls have a very fair complexion, with thick, glossy hair that never falls out. Alopecia is something very rare, even in an old man. They are a vigorous people, well proportioned and straightly built; their walk is firm and elastic; their strength and endurance at times remarkable.

As to their diet, it is a simple one, with coarse rye bread first on the list, and one called "flat bread," unleavened and baked on top of the oven in thin sheets. Then come the milk foods, including butter and cheese; next, cereal, barley and oats, in gruels and soups. Once a day, or once a week, according to their means, comes salted or fresh meat or sausage, and rather oftener fresh, salted or dried fish. In their seasons they have the Northern fruits—apples and berries; also the hardier vegetables. Peas are dried and form an important article of diet all the year round. Their sweetmeats and pastry are wholesome. with nothing heavy or indigestible about them. They indulge little in even the plainest sort of luxuries, however. Their drinking water is, as a rule, highly mineralized, and is, of course, pure. In their lives they are simple, dissipation being practically unknown, although hard drinking is at times indulged in, and smoking is universal. Thus, it will be seen that the conditions of life of these people are somewhat akin to those of primitive man; they are children of nature, as it were, but of confirmed limits. Mentally these people are as sound as they are physically—not astute, but thoroughly sound. Their nervous, potential energy is not rarely great, making itself felt in the various branches of literature and the arts—oftentimes in the voice of a genius.

This unfolding is the result of the stimulus of different environments, of world-contact; and not infrequently is accompanied by physical degeneration of various degrees. This will be referred to later. It may be surmised that people living under such conditions are remarkably free from disease. This surmise is also quite correct, both because the external surroundings, in seclusion, under high altitudes with their rarified air and pure waters, are more nearly aseptic; and also because man and child, brought up to physical perfection, are more capable of resisting the inroads of disease germs.

The infectious diseases are rare and comparatively harmless. Tuberculosis, the first under this head, because it is the most universal and most dreaded, and the first in speaking of the northern races, whose arch enemy it most assuredly is, here is a comparative rarity. But it reclaims its victims when they get away from the protective influences of their home surroundings.

The exanthemata are seldom found, and, when occurring, are mild in degree.

Diphtheria is known in places, and, where it occurs, is accompanied by the usual high mortality rate. Typhoid is almost unknown. The venereal diseases virtually do not exist, unless they be imported.

The most frequent cause of death is probably the different degenerations and fibroses of old age, and accidents. Infant mortality is, of course, also an important factor in the death rate, but a limited one.

Physical and psychical degenerations do not occur, except as the result of certain morbid conditions. For instance, the Cretons of Switzerland, whose condition is supposed to be due to the ingestion of certain qualities in the drinking water.

Crime and criminals are practically unknown in any greater sense, and immorality is the exception in lives that are generally as pure as they are simple.

Now let us note the effect upon these people of change of environment, of transplantation into different surroundings; it is striking and rapid, and, considering carefully what has been said before, it is perhaps not strange that this is so.

We have opportunities of studying these effects every day in our offices, upon people, or descendants of people, from the secluded portions of Norway, Sweden, Switzerland, Tyrol, Scotland, Ireland, etc. The nationality counts for nothing, the pre-existing conditions for everything.

As before stated, my conclusions have been mainly drawn from observations carried on among the Scandinavian races, yet they have held good where my opportunities have permitted me to repeat them upon portions of different peoples, whose pre-existing history, or ancestral life, has been one of seclusion, among confined limits, and never-varying surroundings and means of sustenance.

To briefly sum up the effects, upon the same generation, of a total change of environment, with its change of atmospheric conditions, dirt and drinking water, we observe a loss in the buoyancy of bodily poise; the elasticity of their gait is changed to clumsiness; they seem out of place. The luster of the hair disappears and gives way to a dryness, followed by falling out.

Often digestive disturbances supervene, and constipation becomes very common. This is especially the case among women and young girls, and in their train we get congestion and toxaemic maladies, anaemia, displacements of the womb, dysmenorrhea, etc.

If these people are young, they become, in a much higher degree than formerly, receptive to the contagion of tuberculosis, and, if older, rheumatism becomes prevalent.

In this same generation of peoples who have been transplanted into different life conditions, and who, on account of pre-existing conditions of sameness, have not yet acquired the toleration necessary to flourish in this new life, we also frequently find a breaking down of the nervous system. This is only what we would expect, and we observe it in differing degrees, from a slight mental aberration or unbalance to hopeless insanity in its various forms.

Look into our hospitals for the insane and you will find proof enough of my assertions. The proportion of Scandinavians is quite appalling, also of Germans, Swiss and allied peoples. And, if you will trace their individual histories back you will find, in the great majority of cases, that they originated in just such environment of which I have spoken. These are cases of rapid degeneration of the mental faculties as a result of change of environment, with all that pertains to it.

As has been mentioned before, we may also get the opposite effect of the same stimulus applied, namely, the kindling into activity of potential mental energies. And from the simple peasant lads we derive acute financiers, politicians who come to the front, great professionals and talented devotees in the various branches of art. I could cite many examples here, but as my paper has been based on generalities I will confine myself to those alone and not go into details.

This blossoming into mental activity, however, does not otherwise prevent physical decay or degeneration, and often a brilliant career is cut short by an enemy, repulsed by all former generations of his ancestors, in the shape of tuberculosis, cancer or premature fibrosis, etc. This last mentioned disease, premature because it is the normal condition of the old occurring in the young or middle-aged, I will mention last, but not with the least stress, among the degenerations or diseases of the same or first generation of these transplanted people. And now let me hurry on to the next generation, the children of these people.

The first thing that strikes us, perhaps, in observing these children, is an extreme prevalence of decaying teeth.

From a race who scarcely know of such a thing as a toothache, these young have such bad teeth that a dentist can do nothing for them except extract the stumps and put in a plate as soon as nature will permit him.

And now to a degenerative trait of vastly more importance—the so-called scrofulous diathisis. Of such common occurrence is this that in some degree it is almost the rule instead of the exception. We find the white, semi-transparent skin with the yellow tinge; the mouth-breather with his enlarged tonsils and adnoid vegetations in the vault of the pharynx; the cervical lymphatics the size of lima beans; the extreme facility for catching "a cold;" the dry, crisp hair; the sunken, flat chest. These form a typical picture, one we have an opportunity of observing only too often in its various shades of severity, from the child with the simply enlarged tonsils and lymphatics alone, in conjunction with otherwise good health, to the one with active tuberculosis already developed.

For this condition is the precursor of tuberculosis, the warning of latency or at least of receptivity. And *tuberculosis comes* and garners a harvest that is most appalling. It makes up for lost time, for past immunity. Its breath is more deadly than that of any battlefield; and, while it spares none, the young and promising are the most plentiful of its victims. It comes in all its phases, with inflammation of the joints, bones, serous surfaces, mucous surfaces and lungs, acute and chronic.

No statistics are available; but if I give tuberculosis twenty-five per cent. of all the dead of these first descendants of people whose environment and means of sustenance for untold generations had formerly been stable and fixed, I do not give it more than its just dues.

Diseases of the respiratory tract, as bronchitis and pneumonia, make up a large percentage of the death rate in these young of the second generation, saving tuberculosis the trouble.

Rickets are not as common as might be expected, still a cause of deformities.

Diseases of the alimentary tract, including the diarrhoea, do not cut a very great figure in the mortality rate.

Chlorosis and pernicious anamia are common amongst the young girls.

The receptivity towards the exanthemata and contagious diseases is as ordinary; the power of resisting the poison is frequently diminished, however, and we find them yielding without any struggle.

These again pave the way for their ever alert enemy, tuberculosis, the disease I wish to mention first and last, and with the *greatest stress,* in connection with these victims of change of environment.

CALCULUS OF THE KIDNEY AND URETER, WITH REPORT OF A CASE.*

By Park Weed Willis, M. D.,

SEATTLE, WASH.

Modern surgery has revolutionized the treatment of calculi of the biliary and genito-urinary passages. It was only a few years ago that a patient with either gall stones or renal calculus was treated entirely by medical means, with the results which we all know so well. Some patients would have an attack and we would never hear from them again, while the great majority would have more or less repetitions, and many of them suffer with such frequent and severe pain as to make their lives burdensome. Many patients also have had their lives shortened in consequence of stones in these passages. With the revolution of the treatment all this is changed, for from these tracts we can now remove stones with safety and allow the organs to return to their normal condition.

As a basis for my remarks this evening on renal and ureteral calculus I wish to detail the following history:

A patient, female, age 33, married, mother of five children, came under my observation February 20, 1902. She gave a history of having been healthy until five months previous to my seeing her. At 1:30 in the afternoon she was taken with sudden sharp pain in the left renal region, this lasting until the next morning. The pain did not radiate much from the kidney. She could not lie or sit that night. She called a physician who made a diagnosis of stone in the kidney, but this they did not believe, and called other physicians who said she had pleurisy, for which she was treated until my first visit. Although the sharp pain left her in less than twenty-four hours, she still had some pain and a great deal of soreness, especially when walking or subjected to a jar. During this time she had suffered pain before urinating and a little less during the act, while she was completely relieved when the bladder was emptied.

On the day before my first visit she had another attack of sharp, acute pain similar to the one five months before. She was sent to the Seattle General Hospital, where she was kept under observation. There was no elevation of temperature and her pulse ranged from seventy to eighty-four. The pains and soreness, however, continued. An X-ray picture was taken by Dr. Kibbe, with a negative result. I examined the bladder with a cystoscope, also with a negative result, and took the separate urines with the Harris urine segregator, and found a full normal secretion from the right kidney and none from the left. On March 10 I operated by a lumbar incision and removed this calculus from the pelvis of the left kidney, which weighs twenty-six grains (Fig. 2A),

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*Read before the King County Medical Society, Seattle, Wash., Dec. 15, 1902.

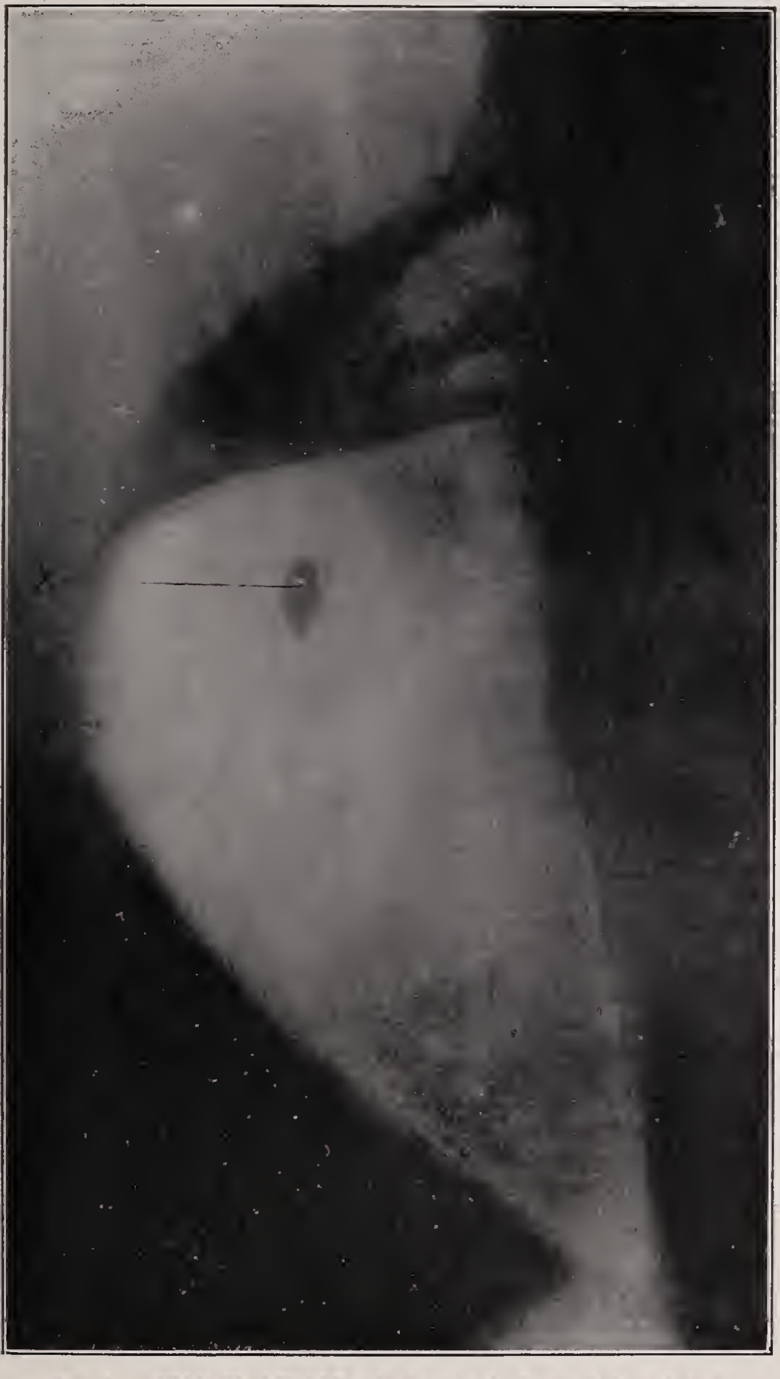

Fig. 1. STONE IN URETER. X. Stone. Y. Brim of True Pelvis.

and which was more or less kidney-shaped and evidently phosphatic on the surface. A catheter was passed down through the ureter, almost to the bladder, and was apparently arrested in the lower part. The opening of the pelvis was closed by fine silk sutures and a gauze drain placed in the wound. This was removed in twenty-four hours and a small piece placed in the outer portion of the wound only, and this in turn was removed in another twenty-four hours and the remaining stitches tied. The wound united without suppuration, and was completely healed in about three weeks. Examination of separate urines showed both ureters patulous and both kidneys secreting normally. Early in April, on the next menstrual period, she complained of a little pain in the left side, which I supposed to be due to congestion about the sutures in the pelvis. This passed off with the menstrual period and the patient felt perfectly well until September.

Early in September she began to have pain in the ureter, apparently near the brim of the pelvis. This pain radiated to the vulva and down the inner side of the thigh. There was no pain on urination. The point of greatest tenderness was over or just below the point where the ureter crosses the pelvic brim. On taking the urine from the kidneys separately, it was found that the right secreted more than the normal amount of urine, while the left secreted almost none, both containing pus cells. The X-ray this time revealed a small stone just below the pelvic brim (Fig. 1). The right kidney was discovered to be distinctly larger than normal, and pressure over this at times caused pain in the left. There was no special pain or tenderness in the left kidney. The diagnosis was made of stone in the left ureter, just below the pelvic brim. No positive information was obtained by a vaginal examination, as the stone could not be detected by this route. An incision five or six inches long was made in the left side of the abdomen, about parallel with the iliac crest and Poupart's ligament. This was extended down to the peritoneum, which was stripped back and this, as usual, carried the ureter with it. The ureter was now plainly visible from above the brim of the pelvis down across the iliac vessels, but no sign of a stone. On tracing it down deeper into the pelvis the stone was found in the ureter, about two and one-half inches below the pelvic brim. An effort was first made to bring it further up the ureter so that it could be removed from a healthy portion of the tube. It was so much larger than the ureter that it was impossible to do this, consequently a longitudinal incision was made directly over the stone, which was removed and the ureteral opening stitched with very fine formaline cumol cat gut. Two rows of sutures were inserted. This stone (Fig. 2 B) is very similar to the first one, only smaller, not being larger than a cherry stone, but irregular in shape, and weighing three grains. I was very strongly tempted to close the wound without drainage, but in accordance with practically all authorities, I inserted a drainage tube, with some gauze, down as far as the wound in the ureter. A portion of this was removed at the end of twenty-four hours, and the rest of it a day later.

A few days after the operation the patient complained of pain again and, although there was practically no elevation in temperature, this continued more or less until I reopened the wound and let out quite a quantity of pus. This infection evidently came from the ureter, but I have wondered if it would have taken place had the wound been closed without drainage. The patient was almost entirely relieved after this, but later she complained again of pain in the region of the kidney and ureter, and passed in her urine many small pieces of gravel, the largest of which I show you tonight (Fig. 2 C). More or less of this comes every day or two, especially the first thing in the morning. She is treated with glycerine and large quantities of water. I think possibly this gravel will pass and relief will follow, although possibly there is yet a stone in the kidney. Examination of the separate urine showed a good quantity from the right and one-third as much from the left kidney, both specimens containing pus.

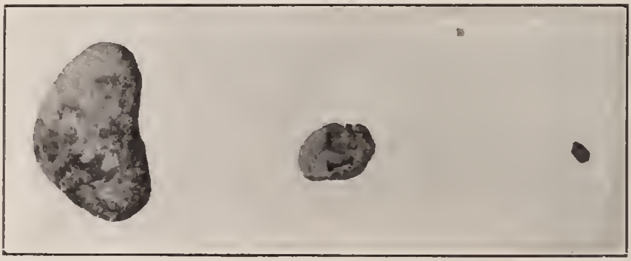

Fig. 2. (Natural size.)

Looking back on the history of this case, I think it probable that the stone in the ureter was there at the time of my first operation. It was, however, too near the bladder to reach from the same incision by which the other was removed. The first stone removed showed no evidence of facets, and a careful search in the calices and the upper portion of the ureter failed to reveal any further evidence of stone. The urine, coming freely from the left kidney, is also evidence in favor of the ureter being free. It is probable, however, that the stone was there at that time. It is my intention soon to have another radiograph to determine the present condition. Her pain at present may be due to gravel and, if so, may disappear without further operative interference. If it should not, however, and a stone is found, it will certainly be removed and a most thorough and complete search of the kidney and ureter made. It seems strange that the first stone, which afterward cast a shadow with the X-ray, was not shown in the first radiograph. This Dr. Kibbe, who did the X-ray work for me, attributed to faulty development of the negative. The last he developed himself, with a good result.

In Kehr's admirable monograph on gall-stones he insists that the colic of that disease is due more to an infection and inflammatory process than to the actual attempt of stones to go through the passages. This seems to me to be a rational view, and applies almost equally to renal calculus. Taking the case above detailed, it is very evident that this larger stone had not made an attempt recently to pass through the ureter, because it was almost large enough to fill the pelvis of the kidney and, consequently, much larger than the caliber of the ureter.

The X-ray and the Harris segregator, or Downe's modification of it which I prefer, are two very important adjuncts in the diagnosis of these cases. In our deductions from the use of the X-ray great caution must be observed. It is possible to get a shadow which is not that of a stone, while, on the other hand, a stone may be present and not cast a shadow on the plate. Dr. Leonard of Philadelphia, who has perhaps done as much of this class of work with the X-ray as anyone else, claims to be able to locate the calculus every time. He takes a picture and if the plate is negative he does not take another, for he considers that final and that there is no stone present. If, however, he finds a shadow, he takes another radiograph two or three days later and then, if he finds another shadow in the same place, he considers it conclusive evidence of a stone. But even with an expert with the X-ray, I think it advisable to consider carefully the other symptoms. The most important of these are: (1) Renal colic, which is very characteristic and may vary in intensity from very moderate to extremely agonizing pain. (2) More or less pain and tenderness about the kidney, continuing between the attacks of renal colic. (3) Haematuria, which is a very common symptom, and often very early. It may be necessary to use a microscope to detect the blood, as it is very likely to be small in amount. (4) Pyuria, which is usually present in cases of long standing, and where there is much pain and, consequently, infection. (5) Various reflex pains, as in ovary, testicle or bladder.

Physical examination will often show an enlarged kidney, due to hydronephrosis or inflammatory changes, or an abnormally small kidney, due to atrophy from the anuria caused by the calculus. There is likely to be more or less tenderness over the kidney, and it is said that sometimes stones can be palpated, although no such case has come under my personal observation. In the case related above the tenderness was very distinct over the kidney before the first operation, and over the ureter near its point of crossing the iliac vessels before the second operation. There was also in this case pain produced in the left kidney by pressure on the enlarged right kidney, before the second operation. Dr. Henry Morris, of London, says there is little danger of being misled by the pain being in the wrong kidney, for in his very large experience he has always found evidence of pain in the diseased kidney, even if it were present in the sound one. Of course, where there is much pain or tenderness in the opposite kidney, the question of bilateral calculus, which is not very uncommon, comes up. Usually a calculus in the kidney or ureter gives definite symptoms. On the other hand, it may cause no symptoms whatever. It may cause symptoms referable to other organs, as, for instance, pain in the testicle or ovary, or symptoms of cystitis, and then, again, according to Dr. Morris, it may cause general symptoms only, a typhoid state and mental prostration, with no symptoms referable to the kidneys. Repeated and careful urinary examinations will often clear up such cases. Our errors in diagnosis are most likely to be made in mistaking renal calculus for cystitis or tubercular kidney or vice versa. Here again careful urinary and X-ray examinations will aid.

The treatment resolves itself into the prophylactic, which consists principally in the avoidance of an excess of nitrogeneous food, and in drinking large quantities of water; although glycerine, piperazine and other drugs are given with varying results; palliative, which, of course, gives only temporary relief from pain; surgical treatment, which consists of nephrolithotomy, nephrotomy and nephrectomy. The latter is to be avoided whenever possible. Nephrotomy is proper in those cases which have gone on to abscess formation and considerable destruction of the kidney tissue, while nephrolithotomy is usually the operation of choice.

When the diagnosis is established, the removal of stones from the kidney, pelvis or ureter is a comparatively simple matter, and is safe for the patient. In fact, this method of treatment is much safer than an expectant plan which allows the calculus to continue its irritation and greatly damage the structure of the kidney. In some instances this process goes on to abscess formation, so that the kidney itself may be lost or even the patient's life. An early operation is very much easier, permanent damage to the kidney structure is avoided (it must be remembered that the opposite kidney may become the seat of nephritis from excessive work), as well as a possibility of malignant change in consequence of this continued irritation. The patient is relieved of the pain during the attacks, and also of the more or less constant fear and dread of one coming on. So, altogether, this is the easier and more satisfactory treatment for the surgeon, as well as the safer and better treatment for the patient.

CASE OF TRAUMATIC CORTICAL BLINDNESS. OPERATION—RECOVERY.*

By David DeBeck, Sc. B., M. D.,
(Late Lecturer on Ophthalmology, Medical College of Ohio.)
SEATTLE, WASH.

On February 19th, 1901, I was requested by Dr. Dana E. Robinson, at that time Marine Surgeon for this port, to see in consultation with him a seaman who had been seriously injured six days previous. This case presented such points of interest, and the outcome was so happy that I think a full report is worth the recording.

Hans H— (Aet. 22). Swede, of fine physique and apparently perfect health and great vitality. On Feb. 13. while at work in the hold of a vessel, he was struck on the back of the head by a large stone falling through the open hatch. The blow must have been a glancing one, and he was evidently stooping down when struck; this unstable posture making him easily thrown forward. Otherwise a weight such as this one was would have crushed in his

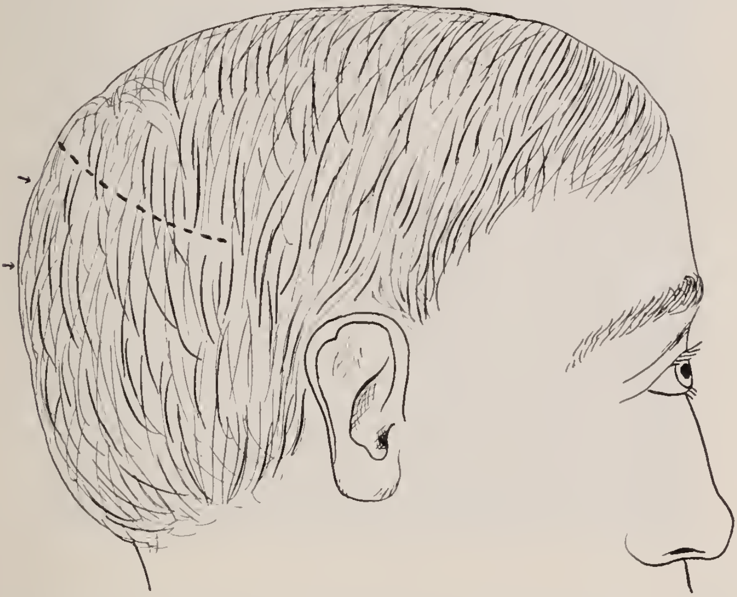

Fig. 1.

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*Paper read at the Thirteenth Annual Meeting of the Washington State Medical Society, Tacoma, June 24th, 1902.

skull and produced instant death. He was taken to the Providence Hospital of this city, and lay unconscious for three days.

On the return of consciousness on the fourth day he was found to be practically blind; only large moving objects were made out faintly and with great uncertainty.

During this time expectant treatment only could be carried out; and locally antiseptic dressings.

There was a linear scalp wound beginning about an inch and a half back of, and the same distance above, the top of the right ear, running backwards and slightly upwards, and ending slightly beyond the median line, about half way between the occipital protuberance and the vertex. (Fig. 1.) It will be seen that this line about subdivides the right angle formed by a vertical and a horizontal line drawn at the top of the ear. Beneath this wound a depressed fracture could be readily made out, and it seemed to coincide practically with the middle half of the cut.

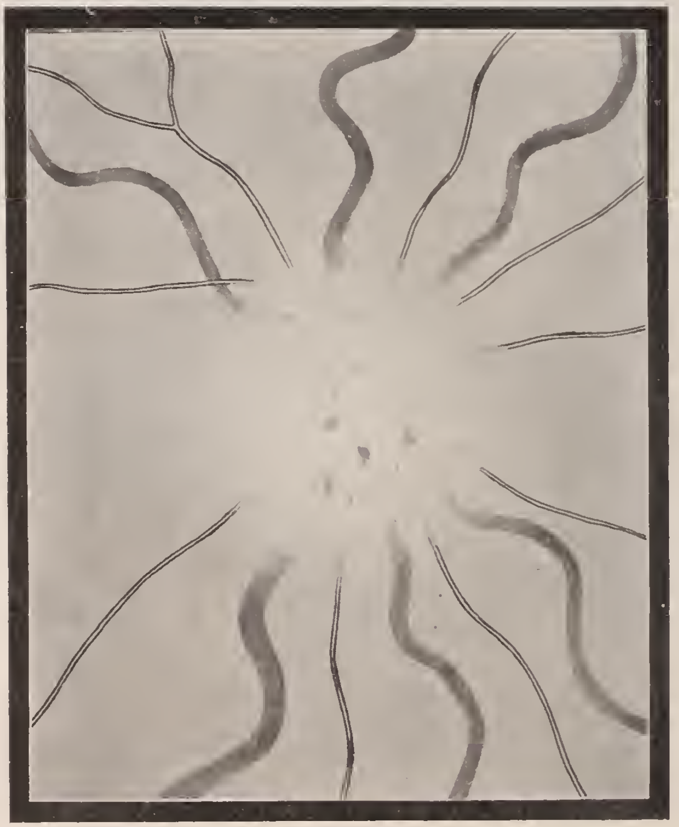

Fig. 2.

Beyond his profound depression no distinct paralyses were noted. He remained in a sort of semi-stupor, but would answer intelligently when aroused by a question sharply asked (bearing in mind his poor knowledge of the English language). He took the drink and light nourishment given him naturally; and the bodily functions seemed normal (allowing here for his unconsciousness and his semi-stupor). In other words, there seemed to be no localizing symptoms—except those given below, and the position of the wound.

Ocular Examination—This was made on the sixth day after the injury. There was now no conjugate deviation of the eyes (whatever may have been the case earlier) ; nor were there any coarse abnormalities of ocular motility.

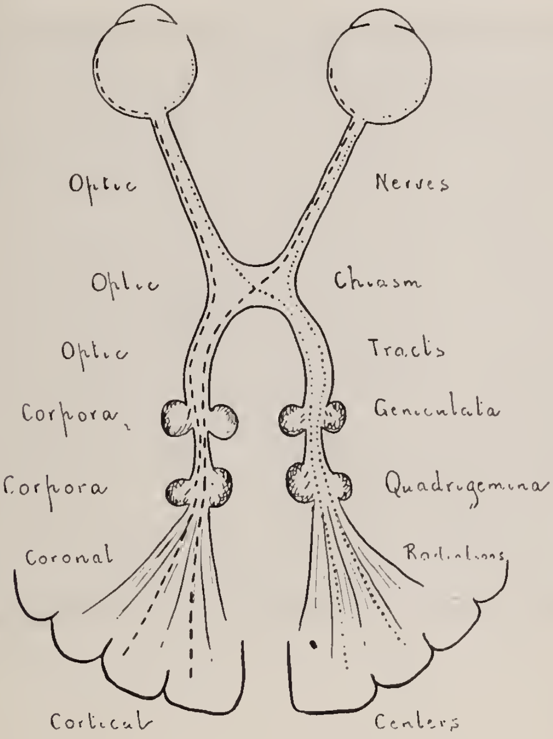

Fig. 3. (*After Ranney.*)

Vision, as stated above, was good perception of light; and a faint and uncertain appreciation of large moving bodies.

The pupils were of medium size (neither extreme dilation nor marked contraction), and were of equal size in the two eyes. They responded to light stimulus—both directly and consensually; and to his attempts at accommodation. In other words, the pupillary phenomena were normal—a fact of strong diagnostic importance.

The ophthalmoscope showed a marked optic neuritis, already beginning to present the picture of a "choked" disc. The optic disc was entirely obscured, swollen and streaked; the veins were engorged and tortuous;, and the arteries were small. (Fig. 2.)

What was notable, as being exceptional, was that this was more marked in the left eye—the side *opposite* to that of the injury.

Diagnosis—The complex of symptoms led me to diagnose cortical blindness; and as it was double—while the wound was mainly to one side of the median line—as probably due to the pressure of a hemorrhage that had spread over a wider cortical surface than the original injury. Time enough had elapsed to allow, no doubt, the primary "remote" effects of the injury to subside.

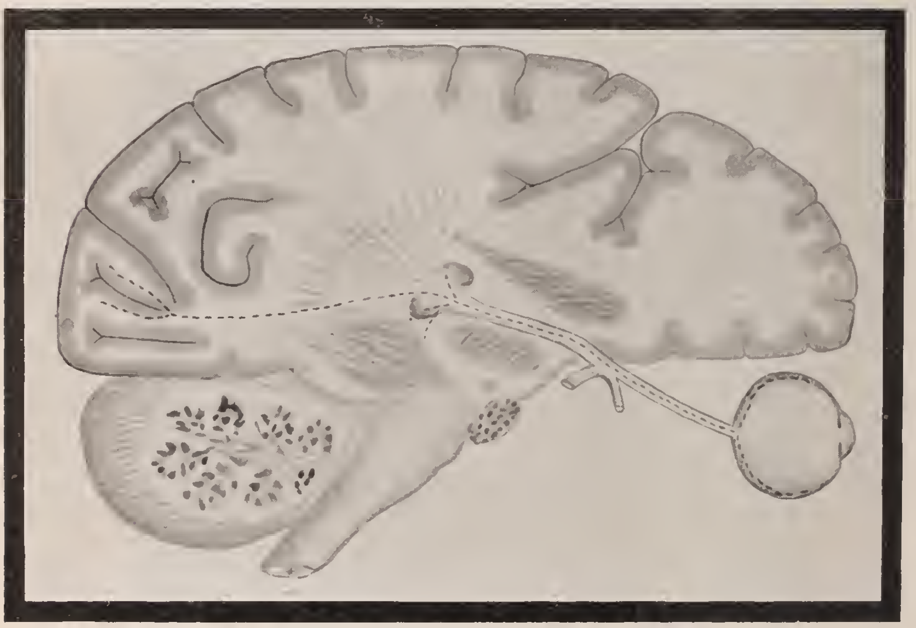

Fig. 4. (*Modified from Henschen.*)

It may be of assistance here to recall briefly the cardinal anatomical points. Starting, for convenience, from the eye (with a purely diagrammatic scheme like Fig. 3), the fibres are followed back along the optic nerve: then through the optic chiasm, the larger portion remaining on the same side, and a smaller portion crossing over; then the joined bundles traverse the optic tract; and are followed into the central (primary) optic ganglia—particularly the external geniculate body. These primary optic ganglia, so called (the external geniculate body, the anterior quadrigeminate body and the pulvinar of the optic thalamus), form a sort of "central" or "relay station," and numerous connections—sensory and motor—are made from this region in various directions. Then finally the fibres pass back through the corona radiata (the optic radiations of Gratiolet), and terminate in the cortex of the occipital lobe. These features may also be studied in a semi-diagrammatic section of the brain (like Fig. 4). The cortical terminations are unquestionably in the cuneus and around the calcarine fissure—but as yet we are not certain as to the exact boundaries of their distribution. The approximate boundaries of this cortical area are indicated in Fig. 1 by the little arrows—so that it can be seen that the wound was not exactly over the visual cortex; but it was near enough for hemorrhage to gravitate or dissect down this far, and exert the necessary pressure here.

A comprehensive lesion of the cortex of one side only would produce homonymous hemianopsia of the opposite sides (fields of vision), while a lesion comprehending both cortical areas would produce (if the term be allowed) a "double" hemianopsia (blindness of both halves, *i. e.,* the whole field). This can be readily understood by following the line of dots for one side and the line of dashes for the other side in Fig. 3.

Cortical lesions, *per se,* are not accompanied by ophthalmoscopic changes, but brain hemorrhages in any location often are—so that this optic neuritis may be charged to the hemorrhage directly. Bearing this in mind we may explain the difference in the neuritis on the two sides: the hemorrhage that had dissected over under the intact bone might exert more pressure than that remaining under the loosened, open fracture—and the side of the greater lesion usually shows the neuritis first, or in more marked degree.

But the neuritis, *per se,* however, utterly fails to account for the profound impairment of vision; we knowing how long optic neuritis may exist—and in fact how long it usually does exist—and how severe it may become before vision is affected by it directly. Moreover, on this sixth day it must be almost certain that the optic neuritis was really only beginning.

But the pupillary phenomena are the best evidence. The intact pupillary responses show that the lesion must be back of the primary optic ganglia where the connections with the pupillary nuclei are made.

Dr. J. B. Eagleson had seen the case in consultation, and he agreed both with my diagnosis and with my view that the chance of restoring vision gave an added indication for operating, over and above the general surgical indication for elevating and removing such (probably) splintered fragments.

Operation—The next morning (the seventh day after the injury), the man having improved so that his general condition was favorable, the operation was made by Dr. Eagleson; Dr. Robinson and myself assisting. The original wound was lengthened and crossed by a vertical incision near its middle. The four flaps dissected back revealed a large cruciform fracture, extending mainly upwards (forwards) through the right parietal bone. The fragments were removed from a keystone-shaped area over two inches and a half high and nearly two inches wide above. (Fig. 5.) In the upper portion of this area (and thus *not* directly under the external wound) was a transverse tear in the dura mater, from which blood could still be pressed out, and through which a small hernia protruded.

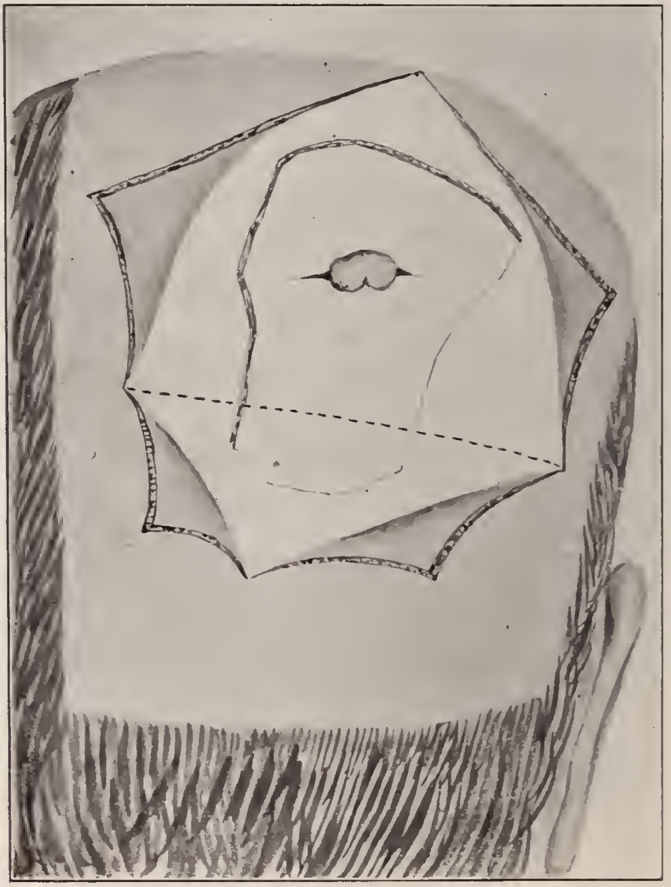

Fig. 5.

The dura mater was opened, and considerable blood and clots removed by the fingers and by flushing. At the site of the hernia there was some slight loss of cortical brain substance.

The wound was lightly packed (trusting to this for drainage), and properly protected. This was the only treatment throughout the course of the recovery—which was fairly rapid and entirely uneventful.

Subsequent Course—On March 1, *i. e.,* nine days after the operation, vision had improved to counting fingers at 3 to 4 feet. The pupils, however, were a trifle dilated and somewhat sluggish in reaction—without any very apparent reason. Any plausible explanation would lead us into the maze of the study of pupillary innervation, hardly worth the trouble here. The "choked" disc had disappeared, although the disc was still soft and blurred, with only its outer (macular) edge visible. The vessels were more nearly normal—the veins smaller and straighter, and the arteries larger (Fig. 6).

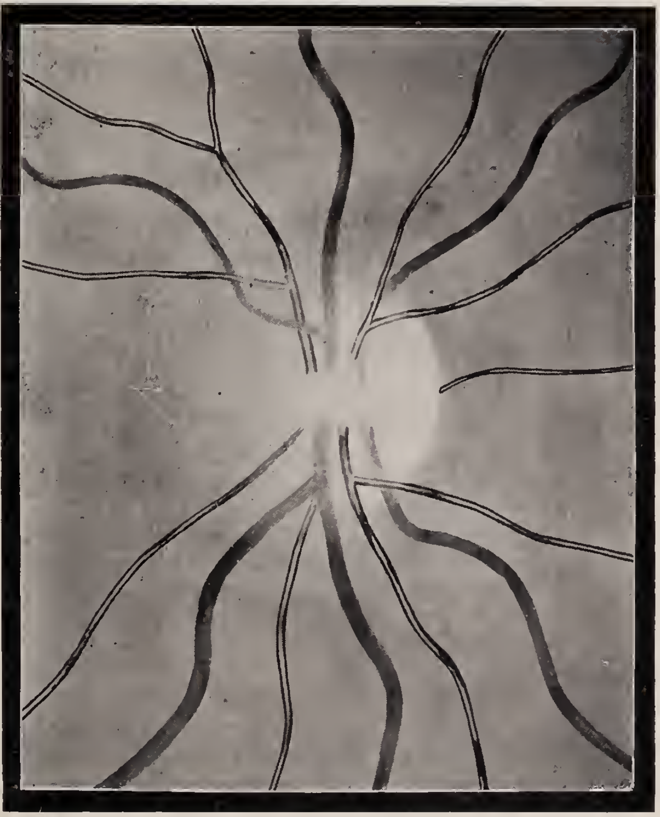

Fig. 6.

On March 20, *i. e.,* just a month after the operation, vision was 20-160 in each eye. The pupils presented about the same condition. The fundus was practically normal—the vessels entirely so. The disc was still "feathery" on its upper, outer and lower edges, its outer edge was sharp, and this portion of the disc surface was bluish gray.

There were some rather interesting "psychic" phenomena displayed. There was a *hesitancy in seeing things* (this being the best expression I can coin), that would seem to indicate certain fine changes in the cortex, by which what have been called the visual "memories," that some claim to be stored up in these centers, had been interfered with. But his intelligence was of so low a grade, and his knowledge of the English language so poor, that it was impossible to carry out any careful researches in this direction; researches that might have given most interesting results.

Six weeks later, May 1st, he was seen for the last time (coming to the office on this occasion). The pupils were now practically normal in size, and perfectly so in responses. With + .75 correction he read some letters of the 20-40 line of test letters. The disc was practically normal, showing only that "roughened," grayish look common after neuritis. Its edges (except the outer) were still "feathery." The future outlook for vision is somewhat problematical. In many of the cases of hemorrhage the early return of good or fair vision is subsequently lost by slow atrophic changes in the optic nerve. But in this case the stasis at the disc remained for so short a time that we need hardly fear any later atrophic changes from this pressure; nor can there have been any such destructive changes at the cortex (as the good recovery of vision demonstrated) as to lead to any danger of a descending atrophy.

The gap in the skull was covered over with skin, through which the cerebral pulsations were visible. It will be necessary for him to wear some sort of protective covering, or head-gear, to prevent this from being a constant source of danger to him from future accidents.

CLINICAL NOTES.

TWO UNUSUAL SURGICAL CASES.

By G. A. Tripp, M. D.,

SEATTLE, WASH.

Case 1. Gangrene of Lung, following Empyema. Recovery.

J. C., Italian, age 30, was taken suddenly ill with pneumonia in April, 1901. A short time later pus was found in the left plural cavity; resection of the ribs was proposed by his physician and declined. A small incision was made between the sixth and seventh rib and a large quantity of pus evacuated. The side continued to discharge for fourteen months, when it suddenly stopped and the patient developed a high temperature with chills and profuse sweating. He was sent to Providence Hospital, where his temperature was found to reach 105. An operation was made without delay, and when the ribs were excised the operators were surprised to find nearly the entire lung in a gangrenous condition, which discharged through the opening. The temperature was normal on the sixth day and the patient left the hospital in ten days. The opening was allowed to close and the patient has gained twenty pounds and is apparently in normal health.

Case 2. Appendicitis, or Psoas Abscess.

T. B., Italian, age 23. When first seen by a physician the following history was obtained: Had been sick with pain in the right iliac region for four weeks; some fever and sweating; loss of appetite and diarrhoea. On examination the temperature was found to be 102, pulse 120 and weak. Had the expression of a very sick man. The right leg was drawn up. The abdomen was intensely swollen and tender in the right inguinal region; there was bulging just above Poupart's Ligament. An operation for appendicitis was made and a large quantity of foul-smelling gas and pus was evacuated. The patient's condition was such that no attempt was made to find the appendix. Drainage tubes were used and the patient put to bed. There was a free discharge of pus for three months, when a second incision was made in the lumbar region to improve drainage. Improvement was noted for three months, when the patient complained of pain and swelling in the left inguinal region, and on examination a psoas abscess was found and a large quantity of pus evacuated. The patient has a temperature of 99-101; diarrhoea, rapid loss of weight, and all indications of tubercular condition of the bowels.

NORTHWEST MEDICINE.

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Managing Editor.

Published Monthly by the Washington Medical Library Association.

Editorial and Business Office - - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.

Application Made at the Seattle Post Office as Second Class Mail Matter.

VOL. 1. JANUARY, 1903. NO. 1.

THE REASONS FOR OUR EXISTENCE.

In these days of multiplied medical books and journals, legitimate reasons should be offered for presenting another of the latter, in order to ensure a cordial reception on the part of the medical profession.

That Northwest Medicine supplies a necessity is apparent on the consideration of certain facts and conditions. In order to keep abreast of the times every physician must read a number of journals published in the large cities and medical centers. The investigations and progress, incident to the large medical schools and attached laboratories, assure literary and scientific productions which furnish much material for these journals. They are a necessity both to the writers and readers. But it is evident that they do not satisfy all the literary demands of the profession, as witnessed by the large number of successful journals published in the smaller cities throughout our land. While the latter possess circulations limited in comparison with the former, they present certain admirable features peculiar to themselves. The fact that their readers are relatively limited in number, chiefly confined to a few adjacent states, serves to make them more of a personal feature to this clientele. Such a journal, in a sense, is a bond of union among the practitioners in question, each month bringing to them the best thoughts and work of physicians known and understood by them.

Furthermore, the existence of a monthly journal in a certain section offers a special inducement to members of the profession, tributary to it, to crystallize their views and experiences into definite expressions of thought for the benefit of their fellow physicians. Any man of intelligence and spirit aspires, at times, to withdraw from communion with himself and engage in contact with the minds of his peers, displaying his own independence of thought and belief. This form of journal stands as a stimulus to this kind of individual action in the region where it is placed.

We have all observed the enthusiastic practitioner, fresh from college or hospital service, with the medical world at his feet, who, after meeting the usual rebuffs and disappointments of the first years of practice, settles into the rut of daily routine work, content to accept what comes to him, and rarely gratifying the taste for original or special efforts which characterized his earlier years. His inactivity in these respects is in part due to lack of opportunity and facilities, but also to absence of example among his associates. Any means of encouraging the display of study and investigation on the part of the physician will certainly commend themselves to all who have at heart the improvement and best interests of the profession.

This is one of the largest and most useful fields of the local journal, presenting a medium for developing and encouraging those who will devote time to working out a definite subject of medical interest, by presenting to their associates, in permanent form, the results of their labors.

Northwest Medicine stands for the principles herein expressed, and desires to exert the influence it may hereafter acquire for the improvement and strengthening of the profession of the Northwest.

The utility of journals of this character has been recognized by the American Medical Association, which has recommended the establishment of at least one in each state, to act as representative and spokesman of the State Medical Society.

That local medical publications have thus far been markedly neglected in the Northwest is evidenced by the fact that, west of Minnesota and north of California, but one journal now exists. No other equal territory and like population in the United States is so meagerly supplied in this respect.

The increase in the number of physicians in this territory, consequent on the marked growth of population, will rival that of any other section of our country. It is, therefore, natural to expect a proportionally increasing production of medical literature as time goes on, which this journal aspires to present to a large body of readers. The promoters of Northwest Medicine believe that the physicians of Washington, Oregon, Idaho, Montana and British Columbia will consider its appearance timely and justifiable.

OUR RELATION TO THE MEDICAL PROFESSION.

We wish it understood, at the outset of our career, that this journal will be neither edited nor maintained in the interests of any particular individuals nor for the advantage of a special section. We desire to enlist the support of the physicians among whom it will circulate, and trust they may feel a personal relation to it.

In the first place, we shall depend chiefly upon them for the material for its pages, and we now solicit them for original articles of a literary and scientific character. In past years many proofs have been presented, at meetings of the State Medical Societies, that the Northwest possesses its full quota of brainy physicians. We desire to act as a channel of communication between these and the profession at large, and our pages are at the service of those who will utilize them for the advancement of medical knowledge and promotion of medical interests.

Secondly, we shall aim, through the editorial columns, to bring to the attention of our readers matters of concern to all of us, and we shall strive to discuss, in an impartial spirit, whatever will conspire to the benefit of the medical profession. To this end we will gladly accept suggestions for editorial consideration and comment, and hope that communications may be sent us with this object in view. Thus, we can hope to keep in touch with the profession and learn their views as well as expound to them our own.

There are times in the history of every live County Medical Society when the question is agitated of preserving its transactions in permanent form. To accomplish this independently is rarely feasible but, through the agency of a district journal, it can be done satisfactorily, simply requiring a monthly report from the secretary. NORTHWEST MEDICINE desires to act in this manner for the County and other Societies reached by its circulation. We hope to make these reports of societies a feature of the journal, and will be successful, with the co-operation of the officers of the societies. We trust this matter will not be neglected, but will receive due attention at each meeting of the several societies, and that monthly reports will be regularly forwarded to the journal.

THE WASHINGTON MEDICAL LIBRARY ASSOCIATION.

This association was incorporated in the fall of 1898 by a number of Seattle physicians for the purpose of establishing and maintaining a medical library, to be placed at the service of the profession of the State of Washington. A nucleus was collected, about which it was planned to assemble a useful library, when the fire of the winter of 1900 that destroyed the public library, consumed all the medical books, which were in the custody of the city librarian. Since that time the association has remained in a state of inactivity until which will accrue to the library, through the agency of a properly conducted about six months ago, when an interest in it was revived. The great assistance monthly journal, was recognized and the establishment of Northwest Medicine was determined upon, as an adjunct of the Association.

This journal will remain the property of the Association, which, through its board of Directors and Publishing Committee, will control and conduct it. All medical literature, accumulated through the journal, will belong to the Association and, in conjunction with material collected from other sources, will constitute the library. The location of the medical reading room and library, together with rules governing their use, will be announced to the profession in a short time. Assurance has been given that when the Carnegie library has been erected, provision will be made for the care of this as a part of the public library. At present, however, the date for the completion of that building being so uncertain, a temporary location will be elsewhere secured, as suitable as the circumstances will permit.

Though the library will be located in Seattle, it is understood that members of the Association shall have access to its volumes, under proper conditions, wherever they may reside.

While it is recognized that many physicians realize the great advantages to the profession from an accessible medical library, others look upon it with indifference, chiefly on account of unfamiliarity with the subject. To one who has utilized one of the large libraries in an Eastern city and thus discovered how indispensable they are to any form of medical investigation, it is at once apparent that herein lies one of the chief causes that will fetter the advancing footsteps of medical progress in the Northwest if this deficiency is not satisfied. However large the individual's purse and extensive his love for medical books, he can never hope to possess a personal library that will meet all his necessities. It is only by union of forces and interests, thus ensuring harmonious effort on the part of many, that a library can be ultimately built up that will be a credit to the profession and at all comparable to the efficient libraries in other sections of the country.

This Association does not aim to accumulate books that will simply answer the requirements of the existing generation of physicians. It has in mind, as well, those who will follow us and who will build largely on what we establish. It is, therefore, fitting that we plan a literary structure with broad foundations, to which can be added in later years as occasion demands. In due time a plan will be announced, by which contributions will be received from all who are willing to assist in assembling a library, according to their ability and inclination.

We take this occasion to urge upon those of the profession who have not already done so, to subscribe to stock in the Washington Medical Library Association, in accordance with conditions mentioned on another page, in our Advertiser, thus proving their interest in this project in a substantial manner.

We take pleasure in announcing that the following gentlemen, well known to the medical profession, have promised original contributions for early issues of NORTHWEST MEDICINE: Drs. J. Clarence Webster and A. J. Ochsner, of Chicago; Simon Flexner and J. G. Clark, of Philadelphia; Howard A. Kelly, J. C. Bloodgood and Chas. E. Simon, of Baltimore; J. Wesley Bovee, of Washington, D. C.; W. J. Mayo, of Rochester, Minn.; Burnside Foster, of St. Paul. We have partial promises from others.

We regret that circumstances have been such as to prevent the beginning of "Book Reviews" in this issue. This department will be instituted in the February number.

NORTHWEST MEDICINE will be issued on the tenth day of the month. All articles and communications for publication should be received by the tenth of the preceding month.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, D. A. Mitchell, M. D.; Secretary, G. S Peterkin, M. D.

The regular semi-monthly meeting of the King County Medical Society was held Monday evening, Dec. 15th, 1902, in the Chamber of Commerce, the president being in the chair.

Dr. J. H. Lyons presented a patient suffering from pernicious anaemia with the following history: Mr. R., age 45, shoe manufacturer. In 1899 he left his home in Massachusetts and engaged in mining and prospecting in Alaska till the fall of 1900, when he returned east. In June, 1901, he again went to Alaska. In July he began to have attacks of gastric pain and indigestion. He grew weak and was unable to do his share of work. By fall he had lost flesh and strength that required going to bed about the middle of December. He did not get up till April, and remained under his physician's care till June, when he came to Seattle. Then he weighed 132 pounds, a loss of 20 pounds. During this period he was always more of less jaundiced. He brought his physician's diagnosis of chronic catarrhal gastritis, inflammation of bile ducts and duodenum. Although weak, he worked for six weeks last fall as superintendent in a shoe manufactory.

Since then he has lost strength, until coming under Dr. Lyon's treatment about six weeks ago. In spite of this he has gained in weight. In September he weighed 142 pounds; November 22, 146 pounds; December 1, 150 pounds; December 5, 145 pounds.

Physical examination shows him fairly well nourished; skin dry and of a yellow lemon color, haemic murmur at base of heart, transmitted to vessels of the neck, liver dulness from sixth space to two inches below the ribs internal to nipple line; splenic dullness extends three fingers below the ribs; palpation shows tenderness over pylorus and other parts of abdomen; no irregularities palpable.

Dr. C. A. Smith reported the following examinations of the blood: December 6, haemoglobin, 25 per cent.; red cells, 1,520,000; white cells, 3,010; smears show very marked poikilocytosis; no megaloblasts, but occasional myelocyte found. December 13, haemoglobin, 35 per cent.; red cells, 1,732,000; white cells, 3,827. This relation between haemoglobin and red cells gives a plus color index of 1.01, which is diagnostic of pernicious anaemia, said to be the only disease in which this is found. Smears show a few megaloblasts and occasional myelocytes.

Dr. Becker enquired if an examination had been made of the stomach contents, commenting on the importance of this.

Dr. Lyons replied in the negative.

The president announced "Water Gas" as the subject selected for the evening's discussion. The secretary called attention to the fact that this is at present the subject of heated controversy between rival commercial bodies of the city, and that it would be unwise for the society to be drawn into it. He moved that the matter be laid on the table, which motion was carried.

On motion of Dr. Holmes, it was voted to extend to Dr. R. C. Coffey, of Portland, who was present, a cordial reception and invitation to participate in further discussions.

Dr. Park Weed Willis read the paper of the evening, on Calculus of the Kidney, and Ureter, with report of a case. (See page 24.)

DISCUSSION.

Dr. Winslow said: I was much interested in the report of Dr. Willis' case It reminded me of an operation for stone in the kidney, which, however, did not result so successfully. The patient was a young woman who had a history of recurrent attacks of pain in the right side for several years. She was referred to me as a case of appendicitis. Examination showed tenderness and a sense of increased resistance below the ribs on the right side. There was pyuria and the Harris segregator showed pus from the right kidney. A diagnosis of stone in the kidney was made, and operation was done through an incision just below the ribs and extending toward the iliac crest. The kidney was found a mere shell of cicatricial tissue surrounded by a perinephritic inflammatory exudate and adhesions, and contained a stone as large as a small hen's egg. Nephrectomy was performed. but, in attempting to raise the kidney in order to secure the renal vessels, a sudden gush of dark blood welled up into the wound in enormous amount. I found it possible to arrest the hemorrhage with a finger on something below the kidney and, still keeping up the pressure, I made an incision through the middle line of the abdomen, with the help of assistants, and on entering the belly found that the renal vein was obliterated, and the kidney directly adherent to the inferior vena cava so that on exerting traction on the kidney, the vena cava had been torn. The rent was closed by a double row of fine silk sutures, the bleeding effectually stopped, and the nephrectomy finished, but the patient died. apparently of shock, in twenty-four hours. In conclusion, I would say that I have found the Harris segregator very efficient in separating the urine from the two kidneys, but the radiograph not efficient in locating stone in the kidney except in thin people and children.

Dr. Smith complimented Dr. Willis on the care displayed in reaching a diagnosis and thoroughness of his operative work, contrasting the present methods of diagnosis in ureteral diseases with those of fifteen years ago, when, as hospital interne, he witnessed a prominent surgeon perform an abdominal section and search for a stone in the ureter, with no other indications than pus in the urine and pain confined to one side. After a vain search he closed the wound without finding a stone. He wished to emphasize the importance of perfecting oneself, as far as possible, in the modern improved methods of diagnosis.

Dr. Sharples said: The value of the X-ray examinations I would not for one moment deny but it is a fact that stones may exist in the pelvis of the kidney and ureter and the plate fail to reveal them, either through the fault of the technique or the interposition of the plate. Again the radiograph may show what appears to be the shadow of a stone and the operation prove its absence. I saw both of these things occur in Philadelphia in the hands of a very skillful radiographer. I have concluded that its results cannot be taken as positive by themselves but that they only add weight to other symptoms toward making a diagnosis.

There are other symptoms that have not been mentioned that I believe to be very important, that is, gastro-intestinal. In some cases these may be marked to the exclusion of all others. One case that I saw, which an operation demonstrated to be stones in the substance of the kidney with abscess formation, presented these more than any other and to such an extent that some specialist had washed his stomach for a long time.

Dr. Coffey said: I am very glad to have the opportunity of being present with you, and sincerely thank the president for inviting me to discuss this paper. The case reported by Dr. Willis is certainly one of very great interest, and one of rather rare occurrence, especially in the far western country. The subject of renal surgery is very interesting. By looking over the work of Morris, of London, of the late Fenger, of Chicago, and others, we are very much interested at the progress made in this important branch of surgery. I believe it was Morris who first incised the kidney for the removal of stones. It was Fenger who has done probably more than any other for the advancement of ureteral surgery. I cannot agree with Dr. Schoenle in his suggestion that such a case as this should have been allowed to remain while palliative treatment was used, for while this treatment was used, it might be that the kidney would be destroyed by hydronephrosis, or still worse, by decomposition or infection of the urine in the pelvis of the kidney, doing serious damage.

Dr. Willis' treatment is certainly to be commended, as well as the successful outcome of the case, as it is a class which has been neglected. The doctor is to be congratulated upon his diagnosis, for it was surely a very difficult one to make, especially as the stone was located below the brim of the pelvis.

Again, I wish to thank you for the courtesy of the floor at this meeting.

Dr. Schoenle said: I was particularly interested in that part of Dr. Willis' paper referring to operation on ureteral calculus, such operations being more difficult and less frequent than for vesical and renal calculi. The natural tendency being for ureteral calculi to pass on into the bladder, it is generally held better unless the exigencies of the case demand immediate operation, to postpone it a reasonable length of time. This fact was forcibly impressed upon me by a case under Hurry Fenwick at the London Hospital last summer, where a ureteral calculus had been diagnosed and operation postponed a week, when the calculus was actually found in the bladder.

While segregators were easy of application and might answer in many cases, I should not rely on them; preferring to use my cystoscope to either catheterize the ureters or make my diagnosis, according to Fenwick, from the characteristic appearance of the vesical mouth of the ureter. Of course, to become proficient in the use of the cystoscope a good deal of practice is required. I should say that among the specialists on the continent, practically only the inventors of the various segregators themselves relied on them; this is notably so in many of the large hospitals in Vienna, Paris and Berlin, where the "first assistants" seem to be almost the sole users and custodians of their inventions.

In Berlin, where, owing to the influence and teaching of Nietze and Casper, the cystoscope is probably used more than in all the medical centers of Europe combined, pyelitis from its use is rarely heard of, while you hear a great deal of this bugbear in Philadelphia, where segregators seem to be solely relied upon.

My faith in the reliability of the Roentgen rays for detecting calculi, particularly renal, was shattered by a case that recently came under my observation at the London Hospital, operated on by Hurry Fenwick, where no trace of stone could be detected on the plate, while sixteen good sized renal calculi, weighing over a pound, were found on operation. They were phosphatic and the failure to show may be thus accounted for, their density being but slightly greater than renal tissue.

In reply to Dr. Schoenle's remarks, Dr. Sharples stated that he had had occasion, after hearing a few weeks ago, the paper of Dr. Smith's on ureteral anastomosis and vesical implantation, to look up the subject and had found a warning against constricting the caliber of the ureter to such an extent as to prevent the free flow of the urine. At such a time as the obstruction is great enough to produce a damming back of sufficient urine to cause a pressure equal to the blood pressure in the kidney will the function of the organ be suspended and atrophy follow. It is very improbable that a stone of the size of the one that Dr. Willis has presented would ever fulfill the tendency to work its way through the ureter, as has been suggested to be the ordinary course of such concretions. Dr. Willis said in his report of the case, that segregation of the urine showed that no urine was coming through that (of the affected side) ureter, and I believe that as soon as such a state can be demonstrated, with or without a certainty of the presence of a kidney on that side and with the added testimony of an X-ray shadow as here found, one would be guilty of criminal negligence to allow any unnecessary time to elapse before an operation is done. By such neglect one would expose the organ to some risk of atrophy, and especially so since the kidney is probably already more or less diseased, long before the symptoms were sufficiently well marked to cause a proper diagnosis to be made.

In closing the discussion Dr. Willis said: Dr. Sharples, in his statements about the X-ray, has only emphasized what was said in my paper on the great care necessary in its use and deductions therefrom. It was not intended in this paper to go into all the symptoms or renal calculus, for our time allows only the most limited discussion of the subject. Gastro-intestinal, however, are properly included under reflex symptoms.

Dr. Schoenle's remarks in regard to urine segregators do not coincide with my experience for it has been a most useful instrument to me and so far, very reliable. Catheterization of the ureters is not an easy matter at all times, even in the hands of experts, and certainly not always safe. Dr. Morris quotes Dr. Musser of Philadelphia, who says that the only cases of pyelitis in his own private practice were from this source. This is what we would naturally expect when we think how often infection of the bladder has followed even careful catheterization. I believe that a good form of urine segregator in skillful hands will be found to give excellent results.

WHATCOM COUNTY MEDICAL SOCIETY.

President, W. H. Axtell, M. D.; Secretary, A. Macrae Smith, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held Dec. 1st, 1902. It was called to order by the secretary. In the absence of the president the chair was occupied by Dr. Markley. The minutes of the last meeting were read and approved.

The committee, which had been appointed to see the city council to attempt to have the streets leading to the hospitals improved, reported that nothing had been accomplished since the last meeting.

The question was presented of the support to be given Northwest Medicine, the journal which is about to be started in Seattle. Dr. Van Kirk spoke warmly in its favor and was followed by others. The secretary was instructed to send a report of each meeting to the journal.

The application of Dr. Gosnell for membership was read and referred to the proper committee.

Dr. Kirkpatrick read the paper for the evening upon Insanity (to be published later). Dr. Hunt led the criticism which was joined in by others. Among other things touched upon was insanity as found in this country and its causes. The principal of these were loneliness, anaemia, due to improper nourishment, race and masturbation. The point was emphasized that great care should be exercised in the commitment of the insane to the asylum.

The criticism was answered by Dr. Kirkpatrick. The meeting adjourned to the second Monday in January.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE AND NERVOUS DISEASES.

Edited by

C. W. SHARPLES, M. D.; H. M. READ, M. D.

PNEUMONIA. Five very excellent articles upon this subject were read before the last meeting of the A. M. A., and appear in The Journal. Four in the issue of Nov. 15th and one in that of the 22nd, 1902.

The first paper by Dr. Edward P. Wells of Chicago, deals with the increasing prevalence, the mortality and individual prophylaxis. By a careful compilation and reduction of statistics to tables, he proves quite conclusively that pneumonia is rapidly increasing; the increase however, seems to be principally confined to larger cities. Fortunately he seems to show quite conclusively, that the percentage of mortality has not increased; if this is true the profession may draw a very small amount of consolation from the fact. From his paper he makes five interesting deductions (1) That the mortality of pneumonia has increased very little if any during the past eight years. (2) The prevalence has become greater in the last half century, and very much greater in the past 20 years. (3) For individual prophylaxis "The upper air passages should be kept free as possible from large accumulations of mucous, and particular effort should be made when these secretions show pneumococci." Avoid chilling when fatigued, keeping the individual away from infected persons and places; the prompt destruction of respiratory excretions from infected persons, such persons being required to cough and sneeze into moistened cloth. (5) For real prophylaxis, the above advice should be kept before physicians, and given as instructions to their patients. (6) That it is important to discover some simple effective means of prevention and to place this disease on the list to be reported to health officers; environments to be carefully noted and results analyzed.

The paper of Dr. James J. Walsh of New York, deals with the subject along practically the same lines as Wells, excepting where he states "The mortality of pneumonia is distinctly on the increase in all our large cities," but furnishes no statistical proof. His statements, however, are very logical and emphasize the importance of prophylaxis. In emphasizing its infectious cause he states conclusively "That the best clinicians all over the world agree that it is contagious." "In wards of hospitals in many parts of the world, the admittance of a case of pneumonia, even when the infection was not due to grippe, has been known to be followed by other cases among patients in the same ward." He cites epidemics in schools, one school having two epidemics in one winter. Such statements from good authority, should make a deep impression upon the readers of these papers. He emphasizes, but more strongly than Dr. Wells, the importance of prophylaxis, as applied to acute cases, especially the prompt destruction of pneumonic sputiem and respiratory excretions. He warns municipalities regarding foul streets, gas leakage, and defective drainage. Neither of the two papers discuss the relative effect of La Grippe as a factor in the increased prevalence of the disease, but Dr. Wells speaks of it in the discussion but also states that La Grippe is not sufficient explanation for the increase.

The paper by Dr. H. B. Favil, of Chicago, is commendable because it deals with blood letting in the treatment of this disease, and as this treatment for certain conditions, more or less vague, has been revived, it is well to consider seriously any thing capable of being so badly misused. The essence of his article is contained in the second paragraph in three deductions (1) The growing tendency to place greater value upon bleeding. (2) The vague and indefinite indications for its use as defined by literature. (3) The importance of not disgracing the procedure by its indiscriminate use. The last being a very sensible warning. He fails to supply any rule or indication for its use, but hints at cyanosis, dyspnoca, and labored heart's action and very appropriately raises the question whether the embarrassed heart's action is due to mechanical or toxic influences. In summing up, he doubts the utility of the measure as an early procedure.

Dr. James Lyson, of Philadelphia, in his article takes a more radical stand in favor of bleeding and defines two periods in which it may be of service; in the early stage for relief of pain and dyspnoea, and in the advanced stage, with engorgement of right heart associated with intense dyspnoea, and general venous stasis. He states that no remedy whatever will so quickly relieve the pain as wet cups, and prefers these for the pain, with bleeding at the arm for dyspnoea, engorgment, and venous stasis. When used in the advanced stage he advises the simultaneous use of hypodermoclysis and oxygen inhalations.

The consensus of opinion brought out in the discussion of these papers was, that blood letting might do good by reducing pressure, eliminating toxines, or both, but no adequate rule for its use is given at all. The various modern drug treatments in vogue, including the experiments in serum therapy made by Wilson and Sears, are discussed in a paper by Dr. A. A. Stevens, of Philadelphia. His investigations and citations would show that serum therapy up to date is of no more avail than any other methods of treatment. Stevens' remarks upon general expectant treatment seem very sensible and logical. He says: "In a large number of cases no drugs are needed. By confining his services in the sick room to the selection of nutritious and easily digestible food, to the recommendation of suitable external applications, and to the critical study of symptoms from day to day, the medical attendant will as conscientiously discharge his duty to his patient as he will by systematically prescribing drugs, which, even if they do no harm, cannot possibly be of benefit." This author advises the relief of symptoms only by appropriate remedies.

This very interesting symposium, on this very much treated disease, is closed by the paper by E. Fletcher Engalls, M. D., of Chicago, in The Journal of Nov. 22, and reviews the well known ground of drug and general treatment, and one regrets to see an authority so well established, lending itself absolutely to emperical methods, and in the same breath confessing to a mortality of 36 per cent. These writings and discussion should be read with interest because they come from men of experience and who are good observers, and more important they treat of a disease, whose etiology and pathology is well understood, and whose treatment is very much a matter of guess work. It seems appropriate to quote from the appeal of Dr. Osler of Baltimore, made after the reading of Dr. Ingall's paper. Dr. Osler says: "We have had presented to us a statement which should impress us all as appalling. When we think that other infectious diseases we treat, have had their mortality reduced ten or fifteen per cent., it is terrible to realize that we, as physicians, must listen with mute impassive faces to the announcement of a thirty-six per cent. mortality in pneumonia. It is an old story and one we have been listening to for years. What I feel deeply," he says, "is that something should be done in a systematic and energetic way to study this problem of pneumonia and see if we cannot reduce this mortality of thirty-six per cent." One thing anyone can see, that in spite of all treatments advised and defended, from authority good, bad, and indifferent, the disease is increasing, and the mortality, if not actually increasing, is not decreasing. What more proof of the inefficiency of any or all the present methods of treatment is necessary? READ.

DIABETES MELLITUS. In no disease has the dietetic treatment undergone such complete revolution as in diabetes mellitus. This is strongly brought out by the experiments of Mosse, whose series of articles in *Revue de Medicine* are translated and reviewed by Drs. Osler and Thayer in The American Journal of the Medical Sciences for November, 1902, and from which this is an extract. The title of Mosse's series of articles is "The Treatment of Diabetes Mellitus and Its Complications by a Diet Consisting of Potatoes." Mosse states that the object of treatment in this disease is the prevention or reduction of the hyper-glycaemia. This he says may be done, either by stimulating organic combustion, and thus hastening the destruction of the grape sugar, or by suppressing from the diet or reducing to a minimum the sugars and carbohydrates convertible into sugar. He cites the fact that potatoes are generally held injurious in diabetes and usually forbidden. He believes, however, that they are not only permissible, but actually useful. They may be given with advantage to the patient as a substitute for wheat bread in the proportion of 2.5 to 3 of the former (weighed raw) to one of the latter. In his dietetic experiments he allowed his diabetic patients to have the enormous amounts of 1 to 1.5 kilogrammes (2 to 2¼ pounds, weighed raw) daily. In some cases the amount was carried up to 3 kilogrammes (about 6 pounds). Wheat bread contains about 47 to 55 per cent. starch, while fresh potatoes contain about 20 per cent. The potatoes can be given in various ways, but Mosse gave them baked. In his experiments he gave about 1 to 1.5 kilogrammes as a substitute for 350 to 500 grammes of wheat bread. After substituting the potatoes there was always a definite drop in the curve representing the urine and sugar excretion.

In none of his cases did the sugar entirely disappear. He says there was always a marked amelioration. The thirst became less, neuralgias disappeared and strength increased. He found after potatoes had been substituted for bread for several days, and then the patient placed on the original amount of bread, the amount of sugar never reached the limit attained previous to the potato diet. Good results have followed the use of the potato in both the mild and severe forms of the disease.

Mosse explains the good effect upon two theories: (1) Potatoes produce a sugar more easily assimilated than that from bread; (2) the potato regime introduces a substance into the organism which favors the glycolytic function of the body. The decrease in thirst is attributed to more water in the potatoes. The increase in the glycolytic function he believes to be due to the much greater amount of potash introduced into the body by the potato diet.

"From charts published it is quite evident that potatoes are better tolerated by diabetics than wheat bread." READ.

TYPHOID FEVER IN CHILDREN. A clinical paper by Drs. J. P. Crozer Griffith and Maurice Ostheimer of Philadelphia and published in The American Journal of the Medical Sciences for November, 1902, is of much interest, as it goes far to prove that typhoid is not a rare disease in young children or even in infants. This refutes the teaching of all the older and most of the best recent book writers, who hold that it is very rare in the first two years and "practically unknown in the first year" of life. These gentlemen report twenty-three cases of congenital typhoid. In seventeen of these the mother had the disease and two occurred during house epidemics. Twelve of these are marked as "reasonably sure," that is, the typhoid bacillus was found in six, and a positive Widal in three, while the characteristic pathological lesions were found in all. There were nineteen deaths, three recoveries and one result not given. They report six apparently healthy infants born of typhoid mothers, and giving positive Widal, showing that more new borns of typhoid mothers would have the fever at birth if they were not probably immunized by antitoxines developed in the mother's blood.

They report 136 cases occurring up to and not including the first year, of which they state 111 may reasonably be considered typhoid; recovery in 28, and death in 77 cases. In the fatal cases the bacillus is reported in 2. A Widal in 8. The clinical symptoms were present in all the cases called positive, and the cases are reported from excellent European and American authorities over a period of 30 years, but mostly within 10 years.

Of the 187 cases reported during the second year of life and collected from the best authority, "171 may be reasonably considered typhoid." Of these 19 gave a positive Widal. Recovered, 69; died, 32.

In the third year up to the age of 2½ years, they report 68 cases, "of which 55 may be fairly considered typhoid." Recovered, 36; died, 14. Widal in 14.

Ruling out cases diagnosed before the days of modern clinical methods, the sure ones reported by these investigators are sufficiently numerous to establish the fact that it is a more common disease in very young children than we have been taught, and also that it is very fatal in very young children and more so in the new born. READ.

PATHOLOGY OF KATABOLISM IN RELATION TO THE ETIOLOGY AND PATHOLOGY OF CANCER AND ALLIED STATES. (By Homer Wakefield, of New York, in Am. Medicine of Nov. 22nd and 29th, 1902).

No hypothetical deduction of the present day is more full of self-evident truth as this remarkable article by Dr. Wakefield. Such articles, and especially this one, are surely destined to give an impetus to investigation along lines that will go far in the next few years to shed light upon an unknown subject. The conditions outlined in Wakefield's hypothesis have been suggested and worked upon by some of the ablest European and American investigators. But no one has yet presented the subject so logically. It has been demonstrated that much of the final digestion and oxidation takes place within the tissue cells of the body, and one should readily understand how the arrest of such digestion and oxidation, as pointed out by Wakefield, must result in the production in the cell, and hence a retention within the economy of the tissue of certain toxic substances. He points out that the arrest of normal katabolism results in the retention of cells which, instead of undergoing normal destruction as it were, are retained and perform a preverted function, and by the physiological process of cell division, beget their kind. How the microscopic picture of a section from a malignant growth emphasizes this deduction; many of the epithelial cells showing vacuoles which some have thought were the micro-organism of the disease, but which in the light of Wakefield's deductions are evidence of an arrested katabolism; how we find in these sections such cells as these undergoing division, and how the same picture shows an anarchy among epithelial and other tissue cells, which have undergone some change and have not involuted, but still live in a crippled condition and go on begetting cripples, and all the time, by their perverted function, loading the system with effete substances which in time produce the evidence of their toxic effect in the so-called cachexia, and in the characteristic changes produced by septic substances upon the blood, as shown in an examination of the blood. His explanation of all growths, upon the arrest in katabolism, is perfectly logical, also why metastasis takes place. He clearly explains other pathological processes, and says that only by the arrest of katabolism and the resulting formation of suitable media, can the various pathogenic micro-organisms find a pasture or sustenance within the body. He says "Infection never takes place in normal tissue under normal circumstances." And again, "Infection is always secondary to some degree of katabolic stosis, somehow produced," and alludes to the well-established fact of predisposition, as an etiological factor in most infections. His summary makes the article very comprehensible, and as one editorial remarks, his hypothesis marks the dawn of a new era in pathological teaching. Upon how much personally conducted original experimental work this hypothesis is based is not clearly stated, but he has given the subject deep study.

READ.

SURGERY.

Edited by

J. B. EAGLESON, M. D.

GUNSHOT WOUND OF THORAX, INVOLVING THE HEART. (Dr. Levi J. Hammond, Philadelphia, Annals of Surgery, October, 1902). The patient came under his observation about eight and a half hours after an accidental gunshot wound of the thorax, at which time he was recovering from shock; temperature, 98 degrees F.; pulse, 96; respirations, 30. There was some pallor, but consciousness had returned. Ball had entered one and a half inches above ensiform cartilage, and about same distance to left of sternum. An immense haematoma filled the left axiliary space. As there seemed to be no reason to fear additional hemorrhage after a lapse of so many hours the treatment consisted of placing the patient absolutely at rest in the recumbent position, and applying an aseptic dressing, after rendering the entire thorax sterile. The whole side of chest was immobilized by broad strips of adhesive plaster, with the hope that the haematoma might be absorbed.

The patient's temperature and pulse ran a normal course for two weeks, except for a sudden rise to 102 on the sixth, and again on eleventh days, but it immediately fell to normal. Kidneys and bowels acted regularly, and at no time did the respirations exceed 24. About 7 p. m. of the fourteenth day, the patient was attacked with vomiting, and died almost instantly.

The following report was made of the autopsy: "The bullet, a thirty-two caliber, had entered the thorax at a point one and a half inches above the ensiform cartilage and one and a half inches to left of the sternum, fracturing the rib at that point, passing through the pericardium and the apex of the heart, making a wound in depth about one-quarter of an inch. It then passed through the pleura and gained exit from the thorax between the sixth and seventh ribs, being found in the subcutaneous tissues after having passed through all the deeper tissues of the back. Its presence could not be early detected on palpation, because of the presence of the immense haematoma, and later, because of its being imbedded in organized clot. The entire heart muscle was enveloped within a wll of organized blood-clot, and about a gallon of serum and blood was removed from the pericardium and pleural cavity. All other organs were apparently normal."

Reference is made to a large number of cases of gunshot wounds of the heart that have lived from a few hours to many years. Among them are three cases in which the bullet lodged in some part of the heart muscle, one of which survived the injury thirty-seven years and died from a cancer of the arm.

EAGLESON.

OBSTETRICS AND GYNAECOLOGY.

Edited by

P. W. WILLIS, M. D.; W. A. SHANNON, M. D.

Howard A. Kelly (American Gynecology, November, 1902), in an article entitled "THE MIMICRY OF PREGNANCY BY FIBROID AND OVARIAN TUMORS," emphasizes the great caution necessary in the examination for tumors of women during the child-bearing period. After citing many interesting and instructive cases, he concludes as follows:

"The following elements enter into these cases as misleading:

1. The patient may be very fat, making it almost difficult to palpate and percuss an abdominal enlargement with precision.
2. The vagina may present a more or less characteristic violet discoloration.
3. The cervix may be soft.
4. The breasts may be enlarged, painful, and may contain fluid.
5. There may be a cessation of menstruation with more or less nausea.
6. The linea nigra may be well defined.
7. There may be a regular enlargement of the abdomen more or less closely corresponding to the calculated period of pregnancy.
8. The mass may closely resemble a fetus in the abdomen, presenting a head, body and limbs.
9. The subjective sensation of movements may be a prominent, and to the patient, a factor decisive beyond argument as to the existence of a pregnancy.

10. A perfect abdominal ballotement may be present.

If the mimicry of pregnancy can be so remarkable, how, then, are we to make a differential diagnosis?

A diagnosis can always be made by a thorough examination which pays close attention to all the important signs of pregnancy.

First and foremost, the foetal heart sounds are always absent, and the pulsations of the tumor will not be mistaken for a foetus if the observer is careful to notice that they are synchronous with the radial pulse. This sign by itself is decisive.

In the second place, even taking the list of mimicking signs given above, no one case presents them all, and the omission of one or other of the usual important signs should put the observer at once on his guard. For example, it is a most suspicious fact when the menstruation has continued through the supposed pregnancy, and I find that physicians treat this sign too lightly, telling the patient that they know of a number of instances in which menstruation has continued. This contradicts my experience.

Again, the presumption is strong against pregnancy when there is an unaltered hard cervix, and the burden of proof rests heavily on him who assumes the contrary.

A more careful examination for ascites, as distinguished from fluid in utero, will reveal it in most cases if the areas of dullness are marked out in four postures, erect, lying dorsally, and on right and left sides.

A recto-abdominal bimanual examination under a brief anaesthesia of gas will always clear up the diagnosis and reveal the uterine tumors or the small uterine body with ovarian tumors.

Lastly, a better knowledge of abdominal palpation in advanced pregnancy will almost always avoid errors in diagnosis.

Other factors which often help in the diagnosis of these mimicking cases are the age of the patient and the length of time the tumor is known to have existed.

The absence of the regular enlargement of the womb, or the non-occurrence of labor, running weeks or months over the calculated time.

The existence in a single woman of an intact hymen.

In all instances of error which have come under my notice the mistake would not have occurred if a thorough examination had been made, using an anesthetic if necessary, and paying attention to all the signs of pregnancy. WILLIS.

Reuben Peterson (American Gynaecology, August, 1902), in thirty-four abdominal sections in strictly gynaecological cases, found the appendix normal in seventeen and the seat of sub-acute and chronic inflammation in the other seventeen. In the cases of pyosalpinx and ovarian cystomata the proportion of diseased appendices was larger, while they were less in the cases of fibroids. He gives this as only a preliminary refort to further study in this line. WILLIS.

Hunter Robb (American Gynaecology, August, 1902), in discussing the advantages, disadvantages and results of SUSPENSION OF THE UTERUS, says that in the large percentage of cases the symptoms are relieved and the uterus is placed in such a position that the abdominal pressure betters the condition instead of acting deleteriously. Advantage is also gained by breaking up adhesions and relieving the patient of other abnormal conditions which may be present.

In mentioning the disadvantages he says the operation may not give relief and the condition may return. He also mentions hernia, general sepsis and interference with pregnancy, but these are practically eliminated by careful technic. He also indirectly emphasizes the advantage of suspensory over fixation methods.

Willis.

Philander A. Harris (American Gynaecology, August, 1902), advises Resuturing in the Abdominal Incision in Suppurating Cases. He waits until the flow of pus has about ceased, which is usually eighteen to thirty days after the primary operation, and then, with the patient anaesthetized, he cleanses very thoroughly and curettes the granulating surface, bringing the different layers of tissue into view, being especially careful about the fascia. He lays great emphasis on the sterilization of the operative field, which he describes in detail. He also considers the kind of suture and method of introduction very important. He uses silk worm gut and makes a sort of mattress suture with an interlocking of the stitches. He claims by this method to secure firm union immediately, in the great majority of cases, and except for the scars from the stitches, the resultant scar very much resembles that of original primary union. Willis.

DERMATOLOGY AND GENITO-URINARY DISEASES.

Edited by

R. W. Schoenle, M. D.

Dermatitis Hiemalis. A recurrent inflammation of the skin, associated with cold weather. (Read at the fifty-third annual meeting of the American Medical Association by W. T. Corlett, M. D., Cleveland, Ohio. Journal of the American Medical Association, December 20th, 1902.)

The author presented a report of fourteen cases before the International Medical Congress in Rome, 1894, and was probably first to call attention to a cutaneous eruption having definite clinical symptoms, following a fairly uniform course, and always associated with or limited to cold weather. Having its two most prominent symptoms watery exudation and itching, the affection seemed at first most closely allied to eczema. The seat of predilection, however, was on the back of the hands, including the fingers and around the wrists. Unlike eczema, the lesions were circumscribed, well defined, often elevated at the margin, while the central area was somewhat depressed, with a tendency to spontaneous recovery, which gave to the eruption, in many instances, a striking resemblance to ringworm.

Histological findings failed to reveal any distinctive changes in the skin, being dependent on the amount of circulatory disturbance and those of ordinary inflam- Later examinations confirmed the above findings. After a careful clinical study of twelve additional cases, which he reports in detail, accompanied by good illustrations, he believes this affection to be more closely allied to the erythemata than first supposed. He cites the dark bluish tint, the parts affected being farthest removed from the center of circulation, and the prevalence of the disease in the early winter and spring months, in which there is the greatest variability of temperature.

While allied to eczema and presenting characteristic features of erythema, it presents a clinical picture quite distinct, which future observations may show is entitled to be looked upon as a disease, *sui generis*, best covered by the name dermatitis hiemalis.

TREATMENT.

While the internal administration of ichthyol seemed to be of benefit in one case, local measures, aside from nature's remedy, warm weather, must be looked to for relief. The application to be selected naturally depends on the extent of the inflammation, and whether or not we have an excoriated area or a thick and hypertrophied condition of the skin to contend with. In the former condition some slightly astringent, soothing application, such as the glycerid of tannin, diluted mation, and repeated search for saprophytic organisms gave a negative result. with distilled hamamelis (1 to 3), lead wash, or the evaporating lotion of Hutchinson (liquor plumbi 2 oz., spts. rectificati 3 drachms to aquæ q. s. 8 drachms). When the disease has become chronic with hypertrophy, salicylic acid 20 grs., ung. diachyli 2 drachms. In place of the diachylon ointment, mercury or tar may be used in ointment form. In all cases the hands should be protected by wearing leather gloves, and when practicable a change of climate affords the most certain means of immediate relief, although it does not eradicate the tendency to the disease.

SCHOENLE.

FOUR FORMS OF GENERALIZED EXFOLIATIVE DERMATITIS—Erythrodermies Exfoliatiantes Generalisees, Besnier. (By J. T. Bowen, M. D., Boston, Journal of Cutaneous and Genito-Urinary Diseases, Dec., 1902.)

The author reports four typical cases illustrating the four forms of generalized exfoliative dermatitis.

Case I. The attack had a sudden onset, beginning with distinct chills, nausea and vomiting, with a temperature for nearly three weeks of 101 to 104 degrees. There was intense erythema, beginning on the face, accompanied by much œdema, and extending rapidly over the whole body. It continued at its maximum for three weeks, the skin being shed in large masses and all the hair and nails being lost. The process diminished slowly, and at the end of five months the skin was normal except persistent roughness and dryness. Recurrent attacks of more or less severity appeared nearly always in the summer and fall. After the third severe attack dark pigmented areas appeared on the back and abdomen, and scattered over them small, round, apparently leucodermic spots. As the scaling diminished the latter increased in size and number, while the pigmentation became less marked. Within the next year and a half there were several more or less severe attacks, but of shorter duration than previously, more mottled pigmentation of the trunk remaining.

This is a case of RECURRENT DESQUAMATIVE SCARLATINIFORM ERYTHEMA, or DERMATITIS, abundantly described by Fereol, Besnier and Brag. A typical case like this could only be mistaken for scarlatina at the very onset, but a typical one might puzzle dermatologists at first. Proof is positive that this form of exfoliative dermatitis may occur from the ingestion of drugs, and Besnier's position seems most reasonable, viz.: that in certain predisposed persons many different causes as medicaments, toxins (sepsis), local irritants, etc., may determine this manifestation, and that the cause in the various attacks may not always be the same. This position finds its analogy in the well-known susceptibility of the skin produced by poisoning with rhus or other cutaneous irritants, so that we may have from other slight causes recurrences of the exact type of the first attack.

Case II. The attack began on the face and head as a violent erythema with considerable oedema, spreading rapidly to the rest of the body. The eruption is of a very intense red and scales profusely, coming off in sheets from the extremities. There was no itching, only moderate discomfort, temperature was normal and the general health was not affected. At the acme of the attack the hair was much thinned and the nails were lifted from their bed by the accumulation of horny material, but neither were wholly lost. Desquamation gradually diminished, and after two months the scales had become very small and fine and the erythema much less pronounced. The skin gradually became softer and more nearly normal except on the face, where there was considerable thickening. About this time quite a number of small white spots appeared upon the chest and back. They were slightly scaling, not atrophic, but stood out sharply from the surrounding erythema. A year after the beginning of the affection the white spots had increased in size, so that the intervening hyperaemic areas soon appeared as prominent spots, and not the white areas. The white spots were evidently produced by a disappearance of the hyperaemia in those areas and perhaps of the pigment, a leusoderma, and as the affection progressed towards recovery these areas increased peripherically, always with a convex margin, similar to vitiligo. The white areas were rough, but not scaling, while there was still slight desquamation on the red spots.

This case belongs to the type of DERMATITIS EXFOLIATIVE WILSON, described by Brocq as "dermatite exfoliative generalisee," or "maladie d'Erasmus Wilson." In most instances, as it is true of all forms of generalized exfoliative dermatitis, the diagnosis is only rendered clear by the course and evolution of the cutaneous disturbance. Its claims to be separated by desquamative scarlatina-form erythema are not very imposing, nor can it be often distinguished from secondary desquamative dermatitis that is illustrated in the next case.

Case III. When first seen the patient's head, arms, legs, and to some extent the trunk, were the seat of intense dermatitis, with much œdema and great trythema, but no exudation. It was thought that ivy poisoning may have been responsible for this as well as previous attacks the patient has had. In a few weeks this case had developed into a generalized exfoliative dermatitis, continuing for over a year before there was any sign of improvement, and after another year and a half there was still some slight scaling and infiltration in places. There were no other symptoms of importance, never any elevation of temperature, and the general health was never markedly affected. This case is of a type familiar to all, being of pretty common occurrence. It belongs to the form called by Besnier "erythrodermie exfoliante secondaire accidentelle," which embraces the cases of generalized exfoliative dermatitis, following or developing from psoriasis, eczema, lichen planus, etc., or caused by the administration of drugs internally, as quinine, belladonna, etc., or by the action of an external agent, such as mercury. While Crocker declares he has seen fatal cases from these secondary cases as from the others, Brocq maintains a mild and short course is characteristic of this class. The author has never known of a fatal case, but does not doubt that certain cases with frequent relapses, as the one reported, might be prolonged for years.

Case IV. The last case is one of pure PITYRIASIS RUBRA, of the Hebra type. The eruption first appeared on the face and could not then be differentiated from erythematous and scaling eczema. The skin was bright red, infiltrated and covered with fine scales. There was no exudation and a moderate pruritus. Otherwise patient seemed in perfect health. Soon the entire scalp was involved and within a year the eruption had become universal, no part becoming normal after once involved. The erythome became more pronounced and there was a very active and constant shedding of brawny scales; the palms and soles were covered with thick keratoses. Soothing applications gave relief, but no treatment seemed to influence the steady progress of the disease. There were no symptoms or signs referable to the internal organs, but difficulty in locomotion confined patient to the house.

Three years after the beginning of the attack and two years before patient's death the hair began to fall from all parts of the body until, during the last months of life, there was total alopecia. The nails became thickened and discolored and were finally reduced to brittle, formless stumps, loosely adherent to the nail bed.

During the last year of the patient's life a marked and steadily increasing atrophy of the entire integament began, with a loss of almost all the subcutaneous fat. Hitherto the suffering had not been great, as the internal organs performed their normal functions. Now there occurred occasional attacks of faintness, later fainting attacks lasting hours, also much restlessness and insomnia.

During the last month the skin had shrunken so that the body looked about one-half its normal size. There was great ectropion and the lips were shrunken so that the teeth in front were fully exposed. The limbs could not be flexed. There was no glandular enlargement and scaling, which had been continuous, ceased almost completely. There were large bedsores on the back and over the trochanters. A weak heart was the only internal complication that repeated examination could detect.

Patient grew weaker rapidly and died of exhaustion five years after the first appearance of the disease.

With regard to the question of tuberculosis, it seems to the author that the theory that we have in pityriasis rubra a condition which readily lends itself to inoculation with tuberculosis is far more probable than the assumption that the cutaneous changes are caused by the action of the bacillus, whether directly or indirectly. The rareness of this form may be seen from the fact that Jadasohn was able to collect only sixteen cases, to which he added two of his own. Certainly the typical cases of this variety present sufficient characteristics to warrant their separation from the other types of recurrent scarlatiniform dermatitis, or from those exfoliative processes secondary to drugs, while less so from dermatitis exfoliativa Wilson. It is, however, difficult to confute those who believe in a benign form of pityriasis rubra Hebrae, and granting that it may exist, it is hard to determine oftentimes where forms of generalized exfoliative dermatitis of Wilson, with its rapid, acute onset. and favorable termination, and pityriasis rubra Hebrae begins.

SCHOENLE.

MEDICAL SOCIETIES.

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Washington State Medical Society President, Chas. McCutcheon, M. D.; Secretary A. H. Coe, M. D.	Spokane
Chehalis County Society President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.	Second Tuesday—Aberdeen
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NORTHWEST MEDICINE.

February, 1903.

ORIGINAL CONTRIBUTIONS.

URETERO-CYSTOSTOMY, WITH TRACTION ON THE URETER.*

By Clarence A. Smith, M. D.

SEATTLE, WASH.

Pelvic surgery of recent years has encountered so many cases of injury to the ureter that the best methods of repairing them have been well worked out and clearly defined.

It is generally recognized that a divided ureter should be reunited by some form of uretero-ureteral anastamosis whenever such a procedure is possible. Grafting the proximal end into the bladder is the ideal operation when this is not feasible and even in some cases of pelvic injury, where the divided ends are not accessible.

In case of loss of a part of the abdominal or upper pelvic sections of the ureter, an anastamosis into some portion of the intestinal tract is recommended by many operators.

Morris[1] places the loss of two and a half inches or more of the abdominal portion of the ureter as the limit for vesical grafting, stating that, with a greater loss than this amount, the question of intestinal anastamosis is to be considered. Although many experimental operations of this class have been successfully conducted, and satisfactory operations have been reported by many surgeons, the ultimate results from ascending ureteral infection and consequent renal inflammations have been most discouraging.

The purpose of this paper is to advocate the anastamosis of the ureter with the bladder whenever uretero-ureterostomy is excluded, even though much traction on the ureter is needed to approximate the two organs.

The necessity of relieving all traction in order to secure union is emphasized by various writers. Bryant[2] declares this a condition to success end of the ureter to serve for traction upon it, the caliber of the uretera opening being enlarged by a small cut on its under surface.

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*Read before the King County Medical Society, Seattle, Wash.

Second. An incision one inch in length is made through the peritoneum at the fundus of the bladder, following the direction of the ureter, anc the peritoneum dissected to each side, exposing the underlying muscle; a the lower end of the exposed muscle a small opening is made into the bladder and the musoca caught by forceps for future identification.

Third. Two silk ligatures are passed deeply into the bladder muscle obtaining a firm hold but not entering the bladder, and through the entir ureteral wall. The first is placed a half inch from the bladder openin and so applied to the ureter as to permit its extremity to enter the bladder The second is situated nearer the vesical opening.

Fourth. The needle with the traction suture is passed into the bladder opening and out through the bladder wall. Traction on this pulls th ureter into the bladder and retains it till the above sutures are tied. A thir silk suture unites the bladder muscle and ureteral wall at the edge of th opening. The traction suture is cut and drawn out from the bladder.

Fifth. The retracted peritoneum is united over the implanted urete with a catgut, concealing it and the silk sutures.

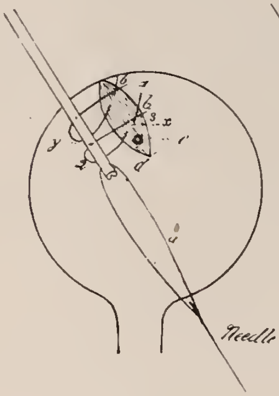

FIG. 1.

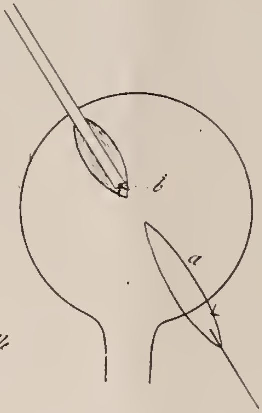

FIG. 2.

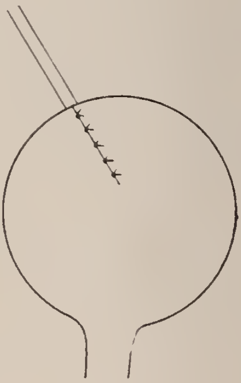

FIG. 3.

FIG. 1—(*a*) Traction suture; (*b*) sutures between bladder and ureter applied in directio 1, 2, 3, grasping bladder wall at *X* and ureteral wall at *Y*; (*c*) edges of reflecte peritoneum; (*d*) opening into bladder. Illustrates *first, second* and *third*.

FIG. 2—(*a*) Traction suture passed through bladder wall; (*b*) third suture between bladde and ureter; the other two are concealed behind ureter. Illustrates *fourth*.

FIG. 3—Peritoneum united over extra-peritoneal ureter. Illustrates *fifth*.

That this method presents a firmer fixation than the direct implantation, perpendicular to the bladder surface, was demonstrated by a series o experiments on the excised genito-urinary tract.

The ureter being severed from the bladder, it was anastamosed by each method, all operations being performed under similar conditions, the same number of sutures used in each and applied in the same manner. The bladders were filled with water and weights attached till they were torn loose from the ureters. An average of three pounds and five ounces were required for separation with the former, while the latter yielded to two pounds and six ounces.

The following operations on dogs were conducted with the view of excising the maximum length of ureter and obtaining a firm union with the bladder. After tying at its vesical junction, the ureter was severed and pulled downwards, the bladder drawn upwards, to ascertain the length to be removed. This varied from one to three inches, which represents proportionately a much greater amount in the dog than man, owing to the direct course to the bladder in the former, without the pelvic curve of the latter. In all but one case the union was perfect.

Where peritonitis or infection occurred, it was due to other causes than leakage at the site of operation.

Experiment I. Collie bitch. 50 pounds.

One inch of the right ureter was excised and the anastamosis made near the fundus. The animal presented a healthy appearance when killed on the thirty-fifth day. Both kidneys and ureters appeared normal and of the same size. On opening the bladder the end of the implanted ureter presented as an elevated nipple, pervious to the probe which freely passed into the canal. *Microscopical examination* revealed nothing abnormal in either kidney.

Experiment II. Water Spaniel. 30 pounds.

The usual operation was performed and one and a half inches of the left ureter excised. The animal continued in normal health and was killed on the thirty-fourth day. The autopsy showed the left kidney was smaller than the right, the former being 2½x1⅝x1 inches, the latter 3x1⅞x1¼. On section it was firmer, its wall three-fourths inch thick, the other being one and one-half inches. The left ureter was the thicker and four and a half inches in length against seven for the right. The bladder presented a normal appearance. A probe readily entered the mouth of the anastamosed ureter.

Microscopical examination of the left kidney showed an intense growth of new connective tissue in the medullary region, obliterating a large portion of the straight tubules. There was also a marked deposit of small round cells of varying degrees of intensity. In the cortical region this condition presented in places, while in others were tubules of nearly normal appearance. The right kidney offered no pathological changes.

Experiment III. Water spaniel. 20 pounds.

From the right ureter two inches were excised, with marked tension resulting. The dog was sick ten days, eating little, and then became as well as usual. He was killed on the thirty-sixth day. At the autopsy the right kidney was the smaller, 2x1x¾ inches, the left being 2½x1½x1⅛ inches. It was lighter in color and more resistent to the knife. Its wall was three-fourths inch thick, that of the left one inch. Its markings were thinner and less distinct. The bladder seemed normal. The new ureteral opening was pervious.

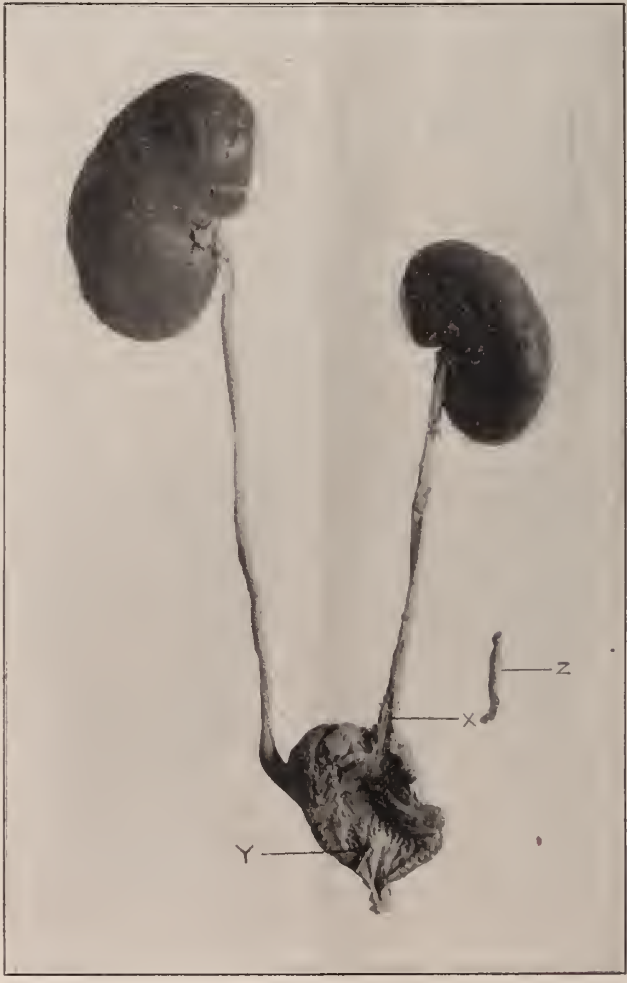

FIG. 4—(*Experiment II.*)
X. Probe in implanted ureter.
Y. Probe in normal ureter.
Z. Excised portion of ureter.

The right ureter was five and three-fourths inches long and considerably thickened. The left measured eight inches.

Microscopical examination of the right kidney showed excessive production of new connective tissue, most marked in the medullary area, accompanied by an abundant round cell infiltration. The straight tubules were compressed and to a large extent obliterated. In the cortical area the same condition existed but less marked. Few sections of a uriniferous tubule were clearly and distinctly discernable. The Malphighian tufts were swollen so as to nearly fill the capsules or had fallen from them. The left kidney presented a normal appearance.

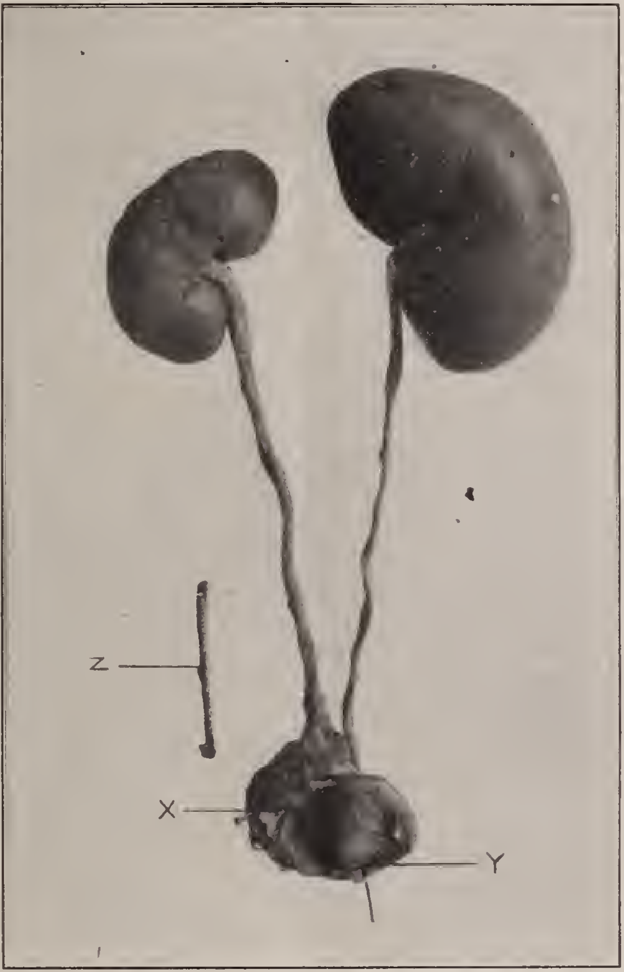

FIG. 5—(*Experiment III*).
X, Probe in implanted ureter.
Y, Probe in normal ureter.
Z. Excised portion of ureter.

Experiment IV. Chesapeake Bay bitch. 75 pounds.

The right ureter was ligatured at the bladder with silk, and two and one-fourth inches excised and fixed to the fundus of the bladder as described above and concealed by peritoneum. Twenty-four hours later it was recalled that a sponge had been left in the abdominal cavity, and the animal being reported ill, she was killed. The offending sponge rested in the flank, securely folded in the omentum and no peritoneal infection presented. The ureter was firmly united to the bladder, the open end projecting into its cavity.

The right kidney, on section, appeared red and congested. *Microscopical examination* revealed patches of red blood cells in and between certain tubules, especially in the cortical area. Otherwise there was no change.

Experiment V. Black male. 40 pounds.

Two and three-quarters inches of the right ureter were removed, the resulting tension being very marked. After a few days the animal appeared ill, refused food and emaciated. On the tenth day he was killed. The autopsy showed all tissues markedly jaundiced. There was a moderate grade of peritonitis, no intestinal adhesions, omentum and bladder adherent to the site of the abdominal incision. The right kidney was enlarged, soft, capsule thick and adherent, surface dark brown and mottled with many small abscesses. On section it was soft, of a dark red color and blood escaped on pressure. The pelvis was distended with pus. The dimensions of the organ were 3¾x2¼x1¾ inches, the wall being one inch thick, while the left was 3x1½x1 inches, its wall three-fourths inch thick. The right ureter was five inches long, distended with pus, the left seven and one-quarter inches.

From the bladder a probe could find no right ureteral opening and passed through the ureter from above, it was arrested near the mucous surface. Apparently the ureter was obstructed by a misplaced suture.

Microscopical sections demonstrated the right kidney densely infiltrated with small round cells and leucocytes, studded with abscesses and between the latter large areas of haemorrhage. In many places the normal tubules were indistinguishable. The Malpighian tufts were infiltrated with small round cells. displaying more or less haemorrhage. and swollen to varying degrees, in some places filling the capsules.

Experiment VI. St. Bernard pup. 70 pounds.

Three inches of the right ureter were excised, producing very marked stretching and pulling the bladder strongly upward. The animal seemed in good condition on the forty-fourth day when he was sold, without authority, to join an Alaska dog team. Presumably his urinary tract was in good working order.

Experiment VII. Black mongrel bitch. 40 pounds.

Two and one-half inches of the left ureter were excised by the usual operation. When tying the sutures one cut through the ureter, requiring a repetition of the operation and removal of another half inch, thus causing a total loss of three inches, with great tension resulting. No ill result appeared and the dog was killed on the forty-eighth day.

The autopsy disclosed the bladder tightly adherent to the abdominal wall. The dimensions of the left kidney were 3x1⅝x1¼ inches, of the right, 3x1¾x1½ inches. The left was of a light mottled brown color, hard and tense to the touch. The right dark and red in places, soft and friable.

The wall of the left was three-fourths of an inch thick, of the right one and a half inch. The bladder was opened through the posterior wall, showing the patulous mouth of the implanted ureter.

Microscopically the left presented a universal infiltration of small, ound cells, with so great a production of new connective tissue that, in most ields, the tubules were not distinguishable. The right was normal in ppearance in the cortical region, but in some portions of the medullary was a round cell infiltration, with sufficient new connective tissue to compress some of the tubules.

In the next three cases both ureters were anastamosed after excising ections from each, all terminating disastrously.

Experiment VIII. Fox terrier. 20 pounds.

From the left ureter one and a half inches was excised, five-eighths nch from the right, the operation being very difficult on account of the small size of the ureter and a very marked degree of tension resulting. An unusual amount of blood and urine escaped into the peritoneal cavity, to which was ttributed the death from purulent peritonitis thirty-six hours later. The autopsy disclosed the bladder contracted, surrounded by firm adhesions. Both ureters were securely attached, the traction on them still evident. No leakage was apparent at the site of operation. Kidneys and ureters presented a normal appearance, but markedly congested.

On opening the bladder a probe readily passed into both ureters. The microscope revealed nothing abnormal in the kidneys, except congestion.

Experiment IX. English setter. 50 pounds.

One and one-half inches were excised from the left ureter, and the end implanted near the fundus. Twenty-five days later one and three-eighths inches were excised from the right and the end implanted an inch from the other. The left ureter appeared normal; the left kidney was not palpated. Ten days later the animal displayed lassitude and soon refused food. He was killed on the forty-second day after the first and seventeenth day after the second operation.

At the autopsy the right kidney was found about twice the normal size, 4½x3x¾ inches, the wall hypertrophied to one and three-quarters inches thickness. The left measured 6x4x2½ inches, forming a sack with a wall one-eighth inch thick. Both were filled with dark, purulent fluid. Both ureters were much dilated.

At the fundus, between the ureters and surrounding their mouths, was a hard tumor, 2x1½x1 inch. No opening could be found from the bladder into either ureter.

Microscopical examination revealed a diffuse nephritis in the cortical portion of the right kidney, with red blood cells, leucocytes and small, round cells. New connective tissue obliterated the kidney features in many parts of the medullary section. Of the left, only fragments of Malpighian tufts remained in the thin cartical layer, with purulent infiltration.

The bladder tumor was of inflammatory origin, presenting a dense mass of fibrous tissue, with varying amounts of leucocytes and small, round cells, and necrotic in places.

Experiment X. Setter. 60 pounds.

From the left ureter one and one-half inches was excised, from the right one and three-quarter inches. When the left was severed, a branch of the superior vesical artery was cut, the resulting hemorrhage being checked by a transfixed ligature. After anastomosing on this side, a marked oedema existed over the fundus, indicating a large vein was caught in the above ligature. Troublesome bleeding occluded the field of operation on the right side, which was thought to have been arrested. At completion of the operation both ureters were on very great tension.

The animal died in thirty-six hours, the autopsy revealing the bladder fully distended by a firm blood clot, undoubtedly derived from the site of operation on the right side. Both ureters were torn loose from the bladder, but remained attached to the ureter, being unable thus early to resist the strain of the extensively dilated bladder.

These experiments demonstrate the success of the operation as concerns secure union between the ureter and bladder, under a very great degree of tension. But in nearly all some degree of interstitial nephritis ensued, in some cases with resulting atrophy of the kidney on the side of the operation. In a number a nephritis of less degree was also found in the other kidney.

The first explanation for this result would be an obstruction of the ureter during the operation, against which a caution is expressed by some writers, who predict from it a hydronephresis and consequent atrophy of the kidney. That this explanation does not hold here, is demonstrated by the fact that the autopsy showed a patulous, ureteral opening in all cases except V, where the ureter was obstructed by a misplaced suture, and IX, in which both ureteral mouths were closed by an inflammatory tumor. In both these was found pyonephrosis and multiple nephritic abcesses, which were absent in all others.

In order to determine whether traction on the ureter was responsible for these results, the following experiments were conducted, at which the ureter was simply severed at its normal site and implanted at the fundus, without loss of substance, the same technique being employed as before.

Experiment XI. Shepherd bitch. 29 pounds.

The left ureter was removed at entrance to the bladder and anastamosed into the fundus. The animal was killed on the fifty-first day. The autopsy revealed kidneys and ureters practically identical. The left ureter was seven and one-half inches long, the right seven and three-fourths. Left kidney, 2½x1 3-6x1 inches; right, 2¼x1¼x1 inches. Both weighed one and one-half ounces. Bladder normal, ureter patulous.

Microscopically both offered a normal appearance, with no signs of inflammatory change.

Experiment XII. St. Bernard bitch pup. 43 pounds.

The operation was performed on the right ureter, and the animal killed on the fifty-fourth day. Right ureter measured eight and one-fourth inches in length, thick and hard; left, eight and three-fourths inches. The mouth of th right was patulous. Right kidney, 2¾x1¾x1⅜ inches; weight, two ounces sixty grains; left, 3x1¾x1¼ inches; weight, two and one-half ounces, thirt grains.

Microscopical examination displayed parenchymatous nephritis of righ kidney, with fine granular matter of varying amount in cortical tubules cell outlines indistinct. some Malpighian tufts crowded to one side by gran ular matter, moderate small round cells infiltration in places. Left kidney showed the same condition in less degree.

Experiment XIII. Fox terrier. 20 pounds.

After ligating the right ureter it was anastomosed into the fundus. On the forty-eighth day the animal was killed. The autopsy revealed, on the right side, a hydronephrosis and the kidney atrophied to about half the size of the other. While its dimensions were 1¾x1⅛x¾ inch, the left measured 2¼x1⅝x1¼ inches. On section, the thickness of this kidney wall was three-eighths inch, compared to one inch of the left, while the diameter of the pelvis of the affected kidney was double that of the other.

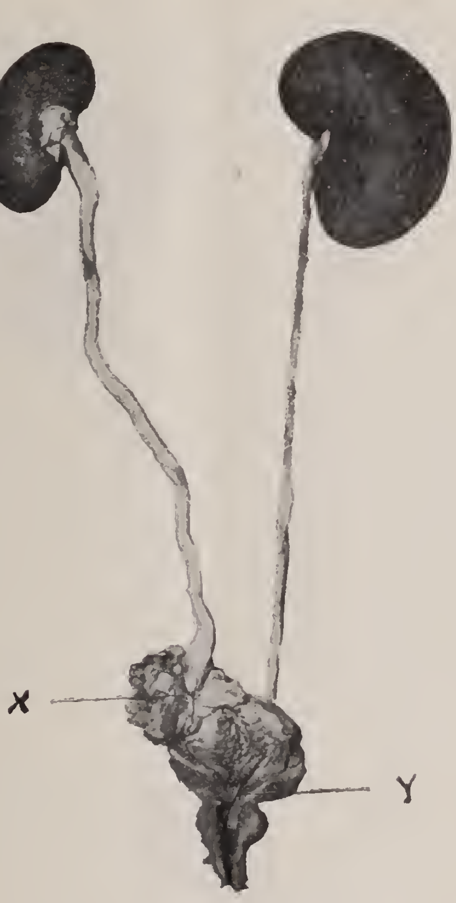

Fig. 6. (Experiment XIII.)
X, Probe in implanted ureter.
Y, Probe in normal ureter.

Microscopical examination disclosed, in the atrophied right kidney, marked interstitial nephritis, with obliteration of many tubules, but the collecting tubules were dilated; contraction of the Malpighian tufts, some of which were segmented or had disappeared. The left kidney presented a beginning tubal nephritis with cells swollen and granular and slight exudation into the tubes; also a moderate degree of congestion.

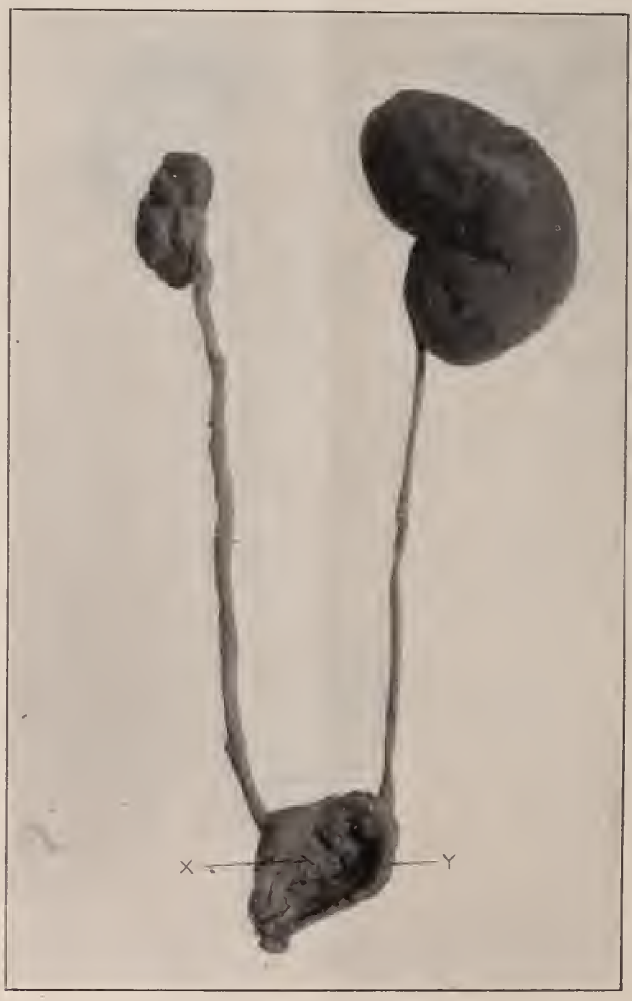

FIG. 7—(*Experiment XIV*).
X. Probe in implanted ureter.
Y. Probe in normal ureter.

Experiment XIV. St. Bernard bitch pup. 24 pounds.

The operation was performed on the right ureter and the animal killed on the forty-eighth day. The right ureter was seven and one-half inches long and thickened, the left eight inches. A most striking condition of atrophy presented in the right kidney. It was 1¼x¾x½ inches; weight, two drachms, hard and dense to the knife; the wall one-fourth inch thick, a mere pink rim of tissue, the surface partly white where the medullary area showed. At places were small nodular masses of cortical tissue. The ureter was patulous from the kidney to the bladder. Left kidney, 2¾x1¾-x1⅜ inches; weight, three ounces five drachms; the wall, one and one-eighth inches thick, presenting a congested appearance.

Microscopical examination showed the right kidney chiefly composed of dense connective tissue, with limited area of small round cell infiltration. There were indistinct patches of uriniferous tubules, filled with granular matter, and at one pole a few Malpighian bodies, with tufts compressed by granular masses. The left kidney presented a mild degree of diffuse nephritis, with granular exudates in the tubules, some new connective tissue and small, round cell infiltration.

The results in these latter cases seem to exclude traction on the ureter as the sole cause of the kidney affection, and if this be a factor, some other cause must be present which probably acts through interference with the blood or nerve supply. Since the organ in all experiments was severed close to the bladder, or within three inches of it, we must look here for disturbance of the vascular or nerve apparatus. Robinson[13] gives eight sources of arterial supply for the ureter, five of which are clustered about the distal extremity; uterine, vaginal, haemorrhoidal median, vesical inferior and nutrient of the pelvis. Some of these must be cut in any operation affecting this part of the ureter. He gives nine sources of nerve supply, of which he says the plexus vesicalis is the chief for the distal ureter. He says the main nerve supply is from the sympathetic, and that the nerves are found chiefly along the blood vessels. Hence in any operation these must be severed with the blood vessels. As both vessels and nerves are intimately connected with the ureter, their injury must inevitably follow an intentional or accidental attack on the latter.

Judging from these experimental results one is led to speculate whether, in operations on man, reported as successful, there may not have ensued a subsequent nephritis and atrophy of the kidneys on the side of the operation, unknown to operator or patient, since all the steps in these operations have been employed in some of the successful ones on the human patient.

The following conclusions are reached:

1. The above described operation will securely unite the ureter and bladder whenever they can be approximated, in spite of the tension thereby produced.
2. The anastamosis may result in nephritis and atrophy of the kidney on the side of the operation.
3. This condition may follow any operation of uretero-cystostomy.

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BERI-BERI, A CLINICAL STUDY.*

By John W. Bailey, M. D.

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Although beri-beri is considered a tropical disease, it is endemic in certain localities on our Pacific Coast. As far as I know, it is confined to the Japanese population; the Chinese are immune to the infection. In British Columbia the disease is prevalent along the Fraser River during the salmon fishing season, as the reports of the physician to the Japanese hospital at Steveson show. That and typhoid fever are the two most common diseases. It is also endemic at Cumberland on the eastern coast of Vancouver Island, where are the Comox mines of the Wellington Colliery Co.

The original home of beri-beri seems to have been in the East Indies and the lands adjacent. Pontius, an East Indian physician, was the first European to describe it. It is mentioned in Chinese records that date from 200 B. C.; but it disappeared from China two centuries ago, remaining in Japan, where it continues to be a most serious endemic malady. It is endemic in Ceylon, New Zealand, India and Brazil. Epidemics have been reported in asylums in this country and in England; and it has broken out on board of ships trading in the tropics. Only last fall a ship from Chili was quarantined at Port Blakeley with a number of cases aboard.

The etiology of the disease is unknown. There are three views as to its cause: first, that it is a manifestation of malarial or rheumatic infection, or of anaemia; second, that it is due to a diet deficient in nitrogen; third, that it is caused by some specific germ. The discovery of the malarial organism has excluded malaria as a factor in the etiology of the disease, and its occurrence in localities where there is no malaria is also against this theory. In regard to the rheumatic origin of the disease: it does very often follow exposure to cold and wet. A case that came to my notice was treated for subacute rheumatism for some weeks, and the true nature of the affection was only evident when a peripheral neuritis developed in the lower extremities. Anaemia is a marked symptom and in this regard the disease may simulate chlorosis. Haemic murmurs at the base of the heart are frequent.

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*Read before the King County Medical Society, Seattle, Wash., Feb. 2, 1903.

The Dutch physicians pretty generally believe in the food theory, maintaining that it is due to a lack of nitrogenous elements in the dietary. A number of others, among them the Japanese, attribute it to bad or diseased rice. This is the common belief of the class of Japanese I have met. Although several germs have been isolated, none of them is regarded as the specific organism. There is no doubt that it is a systemic infection of some sort, as the invasion is usually sudden and the constitutional disturbances marked.

The report of a committee, appointed last year by the Norwegian Scientific and Literary Society, gives the gist of what is known in regard to the etiology of the disease. An abstract that appeared in the London Lancet is as follows: First, beri-beri is an infectious disease due to a specific microbe; second, it is a constitutional disease, the tendency to which is brought about by inadequate or physiologically insufficient food, especially the want of albuminates and fat; third, it is due to an intoxication introduced through the food.

In the tropics the disease is more frequent in the rainy season, and, in the temperate zone, during the summer and autumn.

The mortality ranges from two to fifty per cent. It is not high in British Columbia, as the disease is of so mild a type. The duration is variable; the oedematous form, in my experience, running the shorter course. An attack does not render the patient immune.

The word beri-beri is said to come from the Cingalese name for the disease, Bahr-beri, which means extreme weakness. Kakke is the Japanese word for it. This word comes from the Chinese and means "tired legs." It well expresses one of the marked subjective symptoms.

"The only constant pathological changes found are changes in the nerves. They are always conspicuous under the microscope and are noted in both sensory and motor nerves. They are greatest in the terminal portions. The first change is an increase in the segmental nuclei, shrinkage of the medullary sheath at the nodes, and a peculiar lumpy degeneration of the medulla, sometimes replaced by a foam-like appearance in it, concealing the axis-cylinder. These slighter lesions are found chiefly where the lesion is commencing, and especially in the vagas and phrenic nerves."

"In the muscles there may be at first a cloudy opacity with indistinctness of the transverse striae, going on to granular degeneration; or the fibers simply become narrow, preserving their striation. The nuclei of the fiber-sheath are always increased in number, but the interstitial tissue is generally but little altered."

Clinically the disease is divided into the wet and the dry forms. In the wet form, oedema is the most prominent symptom, while in the drw form, a neuritis is the marked symptom. There are other clinical forms which are distinguished by the severity of the attack, mild forms and a fulminating form which is fatal in a comparatively short time. Osler's classification is very convenient. It is as follows: the incomplete or rudimentary, the atropic, the dropsical, and the acute or pernicious form. The majority of cases occurring in British Columbia belong to a mild, oedematous form.

The symptoms will be referred to more at length in the description of the cases reported. They are weakness, wasting of the muscles, paralysis, anasarca, anaemia, numbness, pain, areas of anaesthesia, and diminution or loss of tendon reflexes.

The cases here reported occurred in the Japanese settlement at Cumberland, B. C. The town is seventy miles north of Nanaimo, and lies at an elevation of six hundred feet, five miles from salt water. The Japanese settlement is in the bottom land at the foot of a heavily wooded range of hills, a small stream flowing back of it. The drainage is good. The water supply is the same as that of the town and comes from a small lake one thousand feet higher up in the hills. The population is two or three hundred. The people live in one story slab houses. The sleeping rooms are crowded, but, as a rule, the ventilation is good. The houses are clean. Near by, in practically the same surroundings, is the Chinese village, with a population of eight hundred or more, the inhabitants of which live in much more unhygienic surroundings than do their neighbors, the Japanese, yet they are never attacked by the disease.

The diet of the Japanese consists for the most part of rice, fish, milk, and eggs, with a few fresh vegetables. The Chinese dietary is very similar, except that they add some sort of fat to it, either fat pork or nut oil. Empirically the Chinese have adopted one of the cheapest and most scientific diets that are known.

The Japanese are employed as laborers in and about the coal mines. In the summer many find employment elsewhere in the salmon fisheries, logging camps, etc.

Beri-beri is present among them at all seasons of the year and appears in individuals who have not been out of the place for months. Many cases originate elsewhere, the disease showing itself after a residence of a few days or weeks in the town. A considerable number of cases developed in those who had returned from the Fraser River. No Europeans were affected, though they often visited their Japanese neighbors and were intimately associated with them in the mines. Forty or fifty cases presented themselves for treatment in the course of a year.

I have made a synopsis of the symptoms in twenty-three cases, which, with one exception, occurred in the year 1900. Twenty-one of these were office patients when first seen. All of them made good recoveries.

	Name.	*Age.*	*Oedema*	*Neuritis and muscular soreness.*	*Pulse rate.*	*Arterial pulsation.*	*Cardiac dilatation.*	*Murmurs, etc.*	*Anaemia.*	*Gastro-intestinal symptoms.*	*Commencement.*	*Knee jerks.*	*Urine.*	*Remarks.*
1	Ohama. Feb. 19, 1900.	22	Oedema over tibiae Calves swollen	Legs tender; unable to rise on tip toe.	80	None.	None.	Faint systolic murmur at the base.	No.	Tongue slightly furred; abdomen distended.	Sudden.	Present.	Nothing abnormal.	When seen February 2, 1900 his pulse was 128. The oedema is now decreasing. Tem. 99. Headache.
2	Muromotu. Feb. 20, 1900.	31	Oedema over tibiae Calves swollen.	Legs "tired;" soreness in triceps and in the muscles of forearm.	72	None.	None.	None.	No.	None.	Sudden. Feb. 18, 1900.	Not taken.	Nothing Abnormal.	Suffered from Beri-beri two years ago.
3	Mahara. Feb. 24, 1900.	45	Oedema over the tibiae; dorsum of the foot.	Calves of legs sore; right wrist sore.	88	None.	Apex beat diffuse 4th interspace inside nipple; visible pulsation over cardiac area.	None.	Not noted.	None.	Jan. 25, 1900	Not taken.	Nothing abnormal.	Both parotids abnormally large.
4	Mat-suta. Feb. 26, 1900.	35	Oedema over tibiae No oedema of ankles.	Tired feeling in legs.	64	None.	None.	None.	No.	Anorexia. constipated.	Feb 12, 1900.	Not taken.	S. G. 1025. Excess urates albumen present. Hyaline casts.	
5	A woman.	Unknown.	Oedema over tibiae (slight)	None.	100	None.	None.	None.	No.	Anorexia, and pain in pit of stomach.	Sudden. 1 week previous.	Not known.	Not Examined.	Temp. 99°.
6	Itzrumi. Apr. 2, 1900.	19	Oedema over tibiae.	Soreness in calf muscles.	100	Carotids.	Slightly increased and of cardiac dullness.	1st sound snappy, systolic blowing murmur at base pulmonary area.	No	Constipation.	Mar. 19, 1900.	Present.	Not obtained.	He finds it difficult to stand on one leg. Resided in B. C. 2 years.
7	Omatuda. Apr. 6, 1900	36	Oedema over tibiae.	Leg muscles tired on exertion.	75	None. Epigastric pulsation.		None.	Not noted.	None.	Mar. 6, 1900. Recurrence April 4, 1900.	Present.	Not obtained.	

	Name.	*Age.*	*Oedema.*	*Neuritis and muscular soreness.*	*Pulse rate.*	*Arterial pulsation.*	*Cardiac dilatation.*	*Murmurs, etc.*	*Anaemia.*	*Gastro-intestinal symptoms.*	*Commencement.*	*Knee jerks.*	*Urine.*	*Remarks.*
8	Takabash. June 30, 1900.	36	Over sbin bones.	Calf muscles sore.	88	Carotids.	Apex beat 1·5 c. m. outside nipple line.	Systolic murmur at apex, booming in character. Harsh systolic mur.	Yes.	Anorexia.	June 25, 1900.	Normal.	Pale. No albumen, no sugar. Indican X	Liver slightly enlarged. First attack of Beri-Beri. (Note. July 25, 1900. Slight Oedema over sbin. Cardiac murmur absent. Pulse 84.)
9	Tauaka. June 30, 1900.	28	Over tibiae.	Calf muscles sore; "legs tired."	96	Carotids.	Area of cardiac dullness normal.	Soft systolic murmur at base; 2d Pulmonary sounds X	Yes.	None.	June 25, 1900.	Normal.	Dark amber s g. 1025. No albumen, no sugar.	First attack of Beri-Beri. Is able to work.
10	Mokai July 10, 1900.	27	Slight over tibiae.	"Legs tired."	78	Carotids and temporals.	None.	None.	Yes.	Constipated.	July 8, 1900.	Normal.	Nothing abnormal noted.	First attack of Beri-Beri. He has been in British Columbia two months.
11	Nomora. July 13, 1900.	26	None.	Pains in knees and chest.	124	Carotids and temporals. Epigastric pulsation.	Apex beat in nipple line; right border of heart, ½ in. to right of center of sternum	Sounds loud and vibratory 2d pulmonary sounds X	No.	Tongue slightly coated.	June 23, 1900.	Normal.	Dusky amber indican X No sugar, no albumen.	Temperature normal (Breathlessness on exertion). July 19th improved. July 27, 1900, unable to go up stairs with ease; unable to work bis toes; heart sounds normal; pulse 78.
12	Kerijanasti. July 27, 1900.	19	None.	Muscles of calf and extensor of knee tender.	88	None. Epigastric pulsation.	Area of cardiac dullness normal.	Sounds loud. 2d pulmonary and aortic sounds X	Yes.	None.	July 13, 1900.	No report.	Nothing abnormal noted.	Hair sprinkled with grey.
13	Surati.	Unknown	Oedema over tibiae.	Climbs a hill with difficulty; soreness of calf and thigh muscles.	72	None.	Apex beat 6th interspace to left of nipple right side, ½ in. to left border of sternum.	No adventitious sounds. 2d pulmonary X	No.	Nothing noted.	Unknown.	No report.	Not examined.	

	Name.	*Age.*	*Oedema.*	*Neuritis and muscular soreness.*	*Pulse rate.*	*Arterial pulsation.*	*Cardiac dilatation.*	*Murmurs, etc.*	*Anaemia.*	*Gastro-intestinal symptoms.*	*Commencement*	*Knee jerks.*	*Urine.*	*Remarks.*
14	Nakanura. Oct. 10, 1900.	Unknown	None.	Steppage gait muscles of leg tender.	116	None. Epigastric pulsation.		2d pulmonary sound X	Yes.	Nothing abnormal	Oct. 17th	Absent.	Nothing abnormal noted.	Oct. 3, saw him first; sick for three weeks previous; effusion in left pleural cavity. Oct. 4, removed 50 oz. of clear fluid; fluid returned. Placed in Comox Provincial Hospital. Oct. 8, temp. 102°; pulse 108; fluid disappeared. Discharged Oct. 17, 1902, cured, pulse at that time, 78. Temperature 98 6-10. Ultimately recovered from Beri-beri.
15	Kogge. June 11, 1900.	20	Oedema over tibiae.	Muscles of calves sore.	94	None. Epigastric pulsation.	Apex beat diffuse; cardiac dullness increased to the right.	1st sound snappy, blowing mur. over pulmonary area. Aortic X	N .	None.	June 7, 1900.	Absent.	Nothing abnormal.	
16	Tomato. Jan. 15, 1900.	18	Oedema over tibiae disappeared in 5 days.	Soreness in muscles.	X	Not noted.	Nothing noted.	Nothing noted.	X	X	Jan. 15, 1900.	X	X	Jan. 25 Extensors of the fingers paralyzed; voice husky; knee jerks absent. March 19, left hand O.K., right still weak.
17	Tomato. June 27, 1900.	18	Oedema over tibiae.	Legs tired.	120	Temporals carotids Epigastric pulsation	Right heart dilatated.	No adventitious sounds.	No.	Anorexia constipation. Pain over lower part of sternum.	June 17, 1900.	X	Dusky. 1011 s. g. Albumen ½%. Indican X	Recurrence or exacerbation of the disease in the same person.
18	Nomata. June 29. 1900.	27	Oedema of tibiae and adductor surfaces thigh.	Legs tired.	80	No.	No dilatation.	Systolic murmur over pulmonary area at the base.	Yes.	Anorexia	June 19, 1900.	Nothing noted.	Dusky amber.	Temp. 98.8. This is an exacerbation of the disease which commenced 1 month ago.
19	Harlad. June 30, 1900.	43	Oedema over adductor surfaces.	Legs tired.	80	Not noted.	No dilatation.	2d pulmonary sounds accentuated.	Yes.	Anorexia.	June 26, 1900.	Absent.	Nothing abnormal.	Had been in Cumberland, B. C, 1½ months.

	Name.	Age.	Oedema.	Neuritis and muscular soreness	Pulse rate.	Arterial pulsation.	Cardiac dilatation	Murmurs, etc.	Anaemia	Gastro-intestinal symptoms.	Commencement.	Knee jerks.	Urine.	Remarks.
20	Takash. October 16, 1900.	37	Oedema over tibiae.	None.	76	General.	Apex just within nipple. Left border of sternum to the right.	Harsh systolicmur. at apex. trans to axil'a, sharp blowing in pulmonary region. 2d pul. X	Yes	None.	Oct. 1, 1900.	Absent.	No albumen.	October 30, condition unchanged.
21	Yoshuara. Jan. 12, 1900.	25	Oedema over tibiae.	Muscles of calves sore.	80	None.	Not noted.	Blowing Systolic murmur over pulmonary area at base.	X	X	Jan. 7, 1900.	X	X	
22	Kawagama. Sept. 17, 1900.	20	None. No history of oedema.	Thumbs drop, left more than right.	72	No.	None	None.	X	Anorexia. Constipation.	One month ago.	Absent.	Nothing abnormal.	Complains of difficulty in locomotion and inability to extend thumbs. Must look when walking. Flexors and extensors of knee weak. Oct. 15, improving and made a good recovery.
23	Name unknown.	22	None. Sept. 3, 1899.	Wasting and loss of power in muscles below the knee	Not noted.	None.	None.	None.	No.	None.	Jan. 1900.	Absent.	Normal.	Severe attack of the dry form of Beri-beri in winter, with great constitutional disturbance, delirium. Multipleneuritis quickly supervened. The patient was idiotic for four months; has gradually improved and ultimately made a good recovery.

Notes were made at the time of the examination under the following headings: name, age, sex, presence of local oedema, neuritis and muscular soreness, arterial pulsation, cardiac dilatation, cardiac murmurs, anaemia, gastro-intestinal disturbances, onset, state of the knee-jerks, examination of the urine.

There was one female in the twenty-three cases. Twelve were under thirty years of age, while the oldest was forty-three, the youngest, nineteen. The ages of three were unknown. Local oedema over both the tibiae was the most common objective symptom and was present in seventeen cases. The oedema, though most marked over the tibiae, was present in muscular subjects over the sternum as well. The calf muscles were swollen where there was oedema. Soreness in the muscles of the legs was complained of in eighteen cases. A neuritis developed in three. The pulse-rate ranged from seventy-two to one hundred and twenty-four. Visible arterial pulsation occurred in seven cases. In one of these it was general, in three it was present in the carotids, and in three, in the carotids and temporals. Epigastric pulsation was noted in six cases. Evidence of cardiac dilatation, in six. A systolic murmur heard at the base over the pulmonary area, was present in eight, and a systolic murmur at the apex, in two. The disease in one of these cases was complicated by mitral insufficiency. The murmurs disappeared as convalescence was established in all except in this one. Anaemia was evident in seven. The knee-jerks were absent in six cases. In eleven there was some disturbance of the gastro-intestinal tract. Albumen was present in the urine of two; one of these was the case of mitral disease. An increase of indican was noted in two.

The following are some of the more interesting cases:

Case No. 11.—Thirty-four days after the onset of the disease, there developed a paralysis of the extensors of the toes, and marked weakness in the legs. Oedema did not appear in this case. The pulse registered one hundred and twenty-four at the onset. It was seventy-eight at the time of the neuritis.

Case No. 14.—This patient gave a history of indisposition for three weeks previous to October 3rd, when he came to the office. There was an effusion in his left pleural cavity which was aspirated. On its recurrence he was sent to the hospital, where it promptly disappeared under medical treatment. October 17th he was discharged, cured. His pulse was seventy-eight. The next day, when visited at his house, he was found to have a tottering gait, knee-jerks absent, and a pulse of one hundred and sixteen. The effusion was undoubtedly the first manifestation of an attack of beri-beri.

Case No. 16.—This case came to the office January 15th, complaining of oedema over the tibia; four days later this had disappeared. On January 25th the extensors of all his fingers were paralyzed and all the muscles supplied by the posterior interosseus nerve were weak. His voice was husky and his knee-jerks absent.

Case No. 23.—This case was a severe infection of the dry type of the disease. It occurred in the winter of 1899 in a young man of twenty-two. He presented all the symptoms of a severe systemic intoxication, high fever, rapid pulse, and delirium. Within a week he developed a multiple neuritis. The acute symptoms gradually abated but he remained in a semi-idiotic state for some months. In the following September he began to move about on crutches, and by late winter he was working again. He complained of some stiffness in his ankle joints.

A case on which I have notes, died, after a protracted illness, from general cardiac insufficiency. A case of the fulminating form terminated fatally within thirty-six hours after the appearance of the first symptoms. There was great prostration, a husky voice, and cardiac failure accompanied by œdema of the lungs.

A number complained of numbness in the paralyzed portions of the body. It was rather difficult to elicit information in regard to this symptom. Several gave a history of previous attacks, both here and in the east. Several gave a history of an attack in China, while serving with the Japanese army in the late war between China and Japan.

An interesting point, is the predilection of the poison for the nerves, especially the vagus. The oedema is supposed to be due to a paresis of the vasomotor system. Generally the disease presents a marked symptom complex, not easily mistaken.

The diagnosis of the disease in those cases that occurred in Cumberland, was made; first, from the fact that the disease was confined to the Japanese; second, from the sudden onset, localized oedema, and cardiac disturbances; third, from the tendency of the disease to develop neuritis. It was confounded with parenchymatous nephritis in one case, and was difficult of diagnosis in a case of mitral insufficiency. It was thought to be subacute rheumatism in one case.

As to the treatment, a change of diet was insisted on. Rice was forbidden and a diet containing more meat and eggs recommended. A cathartic was given at the onset, which was repeated as required. Blaud's pill, 5 grains, combined with small doses of strychnia was given three times a day. The severer forms of the disease were treated symptomatically. Electricity and massage were employed where there was paralysis.

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SURGERY IN AND AROUND THE GALL BLADDER AND DUCTS.*

By Casper W. Sharples, M. D.

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Gall stone cases have received comparatively little attention from the surgeon and general practitioner. Fate and chance directs one's attention to a subject. A few years ago I operated upon a case in a very unscientific manner. Not that the technique was so bad as my knowledge of the pathological conditions and indications.

The operation consisted in the removal of a large gall-stone from the gall bladder, that had already formed an abscess and sinus, through which stones had been discharged. The common duct was not even looked for, I being content and pleased to have removed a single large stone. Of course the man had a sinus remaining.

Realizing my lack of knowledge, I began to look into a very interesting subject, and found more good knowledge of anatomy, pathology and diagnosis of gall stones in an article in the American Journal of Medical Sciences, by Dr. Fenger, than I had before known. This article, and a book by Dr. Kehr, of Halberstadt, I believe are worth anyone's time.

It is a far more common state than medical men in general suppose, for one out of every ten people have gall stones. It is very fortunate that so many people as have them suffer no ill effects. Only about 5 per cent. of all people who harbor gall stones have any material inconvenience from them. This 5 per cent., however, are most extreme sufferers when trouble begins.

I am not competent to go into the formation of gall stones, and the pathology necessary to explain the symptoms. The ordinary idea of the mechanical obstruction alone is probably not tenable in all cases, and according to Dr. Kehr, in no cases.

Should the stones be in the gall bladder, the mechanism is thought to be that of admitting bile into the gall bladder and after its admission, that the stone as a ball valve plugged the cystic duct so that the ever-distending gall bladder attempts to force the stone through in order to empty itself of bile. Should a single stone exist in the common duct, it was thought the pain was due to an effort to push the stone into the intestine on account of the over-distension and damming back of the bile, and that the jaundice was due to the absorption of the bile already formed and excreted so far as the ducts and gall bladder were concerned. Gall stones are about the same specific gravity as the bile, and might easily assume these obstructed positions intimately depending upon postural and secretory conditions, but on account of that same equal or nearly equal weight, they could only be held there by some inflammatory state.

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*Read before the Washington State Medical Society, June 24-26, 1902.

Another, and apparently better idea, is that of an inflammation of the gall bladder or ducts, whichever may contain the stones, as a result of which the gall bladder or duct is stirred into activity and endeavors to expel the stone. This inflammation may produce a congestion and thickening of the mucous membrane around the stone, causing, with the irregularly formed stone, a complete plug, and if the stone can be expelled, the organ obtains a natural drainage and the inflammation subsides. Whatever condition of the gall bladder or ducts or of the bile permits the deposit of the bile stones to form calculi renders the mucous membrane more liable to inflammatory troubles. That an inflammatory process takes place is abundantly demonstrated by the chill and fever that so often accompany gall-stone colic, which we at one time, for some obscure reason, attributed to the mechanical condition. The jaundice rapidly following this chill and fever can hardly be mechanical alone, but depends upon some inflammatory change, in the smaller radials of the bile ducts and the hepatic cells themselves.

Cases of chronic jaundice have been operated upon, by draining for a time the common or hepatic duct until the inflammatory condition subsides, the results of which have been very beneficial. I will not attempt to enter upon the constitutional effects of jaundice. This inflammatory condition depends upon the invasion of germs, more commonly the amoebi coli. However, streptococci and staphylococci are found, and produce more severe imflammation with pus formation. The ravages of gall-stones are many. A number of years ago I assisted at an operation for appendicitis, or what was supposed to be an abscess from appendicitis, and the operator removed from this abscess, which came from below the liver, a good-sized gall-stone, depending, no doubt, on the perforation of the gall-bladder following an empyema. Nothing was done with this case, excepting to clean up the abscess. This man recovered, and in about a year came back to Seattle with a like attack, and died the next day without an operation. The surgeon who had operated upon him was out of town, and he would have no one else to see him.

Sometimes the patient is more fortunate, and the empyema discharges itself into the intestine, which had previously become adherent to the gall-bladder. This surrounding inflammation may form bands that produce obstructions to the intestines. The ducts may be perforated, general peritonitis may ensue upon perforation. Gall-stones may be collected at the lower end of the common duct, and produce perforation into the duodenum.

Gall-stones may be instrumental in the formation of cancer of the gall-bladder and secondary deposits in the liver.

A hemorrhagic tendency accompanies the gall-stone cases, and especially are we liable to see hemorrhage from the stomach. Material changes take place in the liver substances, on account of the presence of gall-stones in the gall-bladder, the lower part of the liver oftentimes being found elongated and mistaken for some other organ. These things, added to the extreme physical suffering of patients affected with the gall-stone disease, makes a rather pitiable outlook for gall-stone cases.

The question comes as to what cases we should operate upon and what cases should take a strictly medical course of treatment. Dr. Kehr speaks of two classes of patients—those that should go to Carlsbad and those we should operate upon. Patients who have very little inconvenience and are able to be up and about, are benefited by such treatment as improves their general state so much that they are able to throw off the constitutional disturbances that have arisen from gall-stones.

It seems that Carlsbad has the reputation of curing gall-stone disease, and Dr. Kehr says that, during a three weeks' stay at these springs, he saw only two cases that he could, from his standpoint, diagnose as gall-stone disease. The more severe cases receive no benefit, and go away.

While we can diagnose gall-stone disease, it is hard to tell how extensive the condition is. In those cases that have produced only a few symptoms, mere experience teaches one to more accurately diagnose and locate the stones.

Should any inflammation, colic, fever, jaundice, etc., occur, it is justifiable and prudent to advise an operation, and that early. How early is always a question. I believe that when a diagnosis has once been made the operation should be advised, and that a knowledge of the possibilities of gall-stone disease would cause a more general operative treatment than is now carried out.

No surgeon, however, can promise that new stones will not form, nor are gall-stone operations so easy that the operation should be considered in a trivial manner. A few points that I have learned about operating may be useful. Just before operating upon the last case, I looked up the technique in Dr. Jacobson's book on Operative Surgery, that has just been issued, and found the suggestion of putting a long, narrow sandbag transversely under the patient's back. This was tried and I found that the ducts were brought much closer to the abdominal wall, that the intestines were pushed away, and I was much surprised to find the duct almost in front of me. When the edges of the wound were retracted, a proper amount of packing gauze holds the intestines away and also will protect the peritoneal cavity against infection. While I have only used silk in sewing the peritoneum and gall-bladder, and likewise once in the duct, I believe it to be poor practice. The silk is liable to drop into the gall-bladder and duct, and be a nidus for a gall-stone. Dr. Kehr advises long interrupted silk sutures for the gall-bladder and peritoneum, so that they can be pulled out. I propose in the next case I operate upon to use fine chromic gut.

In exploring the duct for stones, the only sure method is to freely open it and insert a finger when the calibre of the duct is sufficient to allow this procedure.

The mortality is not high in this class of cases, varying, of course, with what is necessary to do. In a case where the gall-bladder is opened on account of stones, the mortality is lower than when it is opened on account of pus and where a streptococcus and staphylococcus condition exists. The mortality is higher in cases that require an opening in the common duct.

The following cases have been of interest to me, and I hope I may not tire you with the recital of them, which I am making as brief as possible:

Case No. 1.—M. M., aged 72, had for a period of six months, attacks of gall-stone colic, with chill, high temperature, and sweating, followed in a couple of days with intense jaundice, which would pretty well clear up, to be followed in two or three weeks with another attack. After watching the case for a time, I became convinced that the man had one or more stones in the common duct, that were causing general systemic disturbances, and, accordingly, after his request to try sweet oil, phosphate of sodium, etc., his abdomen was opened and a small stone, about one-third of an inch in diameter' was found floating in the common duct, which in itself was much enlarged. This was removed and two stitches taken in the duct, which failed to do any good, the duct being surrounded by adhesions, and the stitches poorly placed. A drainage tube was inserted to the opening of the duct. Bile escaped freely for a few weeks, and the wound then closed. In two months after he was apparently well. He had another chill, fever and sweat, with severe pains and reopening of the sinus. That was over two years ago, and since then he has had no symptoms, but has added a good many pounds to his flesh. I believe that the attack subsequent to the operation was due in some manner to the stitches that were placed in the duct, and that whatever was formed passed through into the intestines. The gall-bladder, in this case, was not thickened, and as no stones could be felt in it, it was not opened.

Case No. 2.—Mrs. P., age about 60, had no previous history. During the winter preceding the time I first saw her she had suffered pain through the region of the liver, the epigastrium and under the sternum, with a great deal of constipation, and a moderate amount of jaundice. She lost a great deal of flesh, was pale and anaemic, listless, and a woman from whom it was impossible to elicit a direct answer. She had no appetite, and complained of pain on eating. There was pain upon pressure over the pyloric region, and some rigidity of the rectus muscle. It seemed to me at the time that she probably had a cancer of the stomach, and in this probability Dr. Eagleson concurred. The woman was referred to me by Dr. Eagleson as a medical case. In a short time, however, I was sent for on account of severe pain, and found what seemed to me to be a typical attack of gall-stone colic.

An operation was advised, and the case turned back to Dr. Eagleson. The operation showed a distinct thick gall-bladder, with adhesions around the ducts. The gall-bladder contained thick, black viscid bile, and a good many stones of an unusual formation. The center was a small grain, like an ordinary gall-stone, and onto this were set small, black, sharp-pointed crystals, that were very hard and solid. I should say that none of the calculi would weigh as much as four grains. This woman did very well for a week, when she suddenly became very faint, vomited some blood and died. An autopsy showed that there had been a rupture in a sub-mucous vessel, breaking through the mucosa, and from this the woman bled to death. The stomach was full of blood.

Case No. 3.—To Dr. Eagleson am I indebted for the privilege of mentioning another that, however, has no particular interest except that the gall-bladder contained 430 gall-stones, one of which was lodged in the cystic duct. There was very little, if any enlargement of the gall-bladder, and very little bile. This woman did very well, and made a rapid recovery.

Case No. 4.—Mrs. H., a woman about 60 years old, who, about six months before had severe abdominal pains, consulted me concerning a lump she could feel in her side. While standing the mass descended down into the right pelvis, well below the line from the umbilicus to the anterior, superior spine of the ilium. As she lay down, its lower end was just above that line. On palpating it, as she lay on her back, a firm, hard mass about the size and shape of a kidney, was felt and what appeared to be the hilum of the kidney was made out, so that a diagnosis of floating kidney was arrived at, and an operation proposed for that condition. In attempting to anchor the kidney, I found that the mass was not a kidney at all, and that at the upper end of it could be felt a stone, the peritoneal cavity having been opened in trying to get down to the mass that had been mistaken for a kidney. The posterior wound was closed, and an anterior one made.

The gall-bladder was about six inches long and the walls were very thick and it was partly covered by an elongated, thin portion of the liver which formed, with the gall-bladder, what I mistook for the hilum of the kidney. The walls were thickened, the contents of the gall-bladder were clear fluid, and four large gall-stones, one of which was in the cystic duct and was with difficulty pushed into the gall-bladder. This one was about the size of and looked to be like in appearance a nutmeg. A large part of the bladder was cut off and the remainder stitched to the peritoneum. Drainage was inserted and the woman made an uncomplicated recovery.

Case No. 5.—This woman, aged 63, whom I saw with and operated on through the courtesy of Dr. Moore, had had her first attack of gall-stone colic twelve years ago, and a number of attacks since. In the last attack she had been jaundiced for a long time, and had had very severe pain, off and on, during the attack. She was emaciated and anaemic, and in a good many ways a poor subject for operation. The gall-bladder was distended somewhat and had thickened walls, and contained viscid bile and three large gall-stones.

The common duct was much dilated and was opened, for all no stone could be felt in it at the time. In passing the probe down the duct, a stone could be felt at the orifice of the duodenum, which was dislodged, and evidently pushed through into the intestines.

This woman died in about sixteen hours, and an autopsy showed that the papilla had become very much enlarged and thickened, so that it was nearly as large around as a quarter. I am very positive that this was not what was mistaken for a gall-stone, for after working around the parts this mass softened down, and quite a large opening was found in the intestine. All the ducts were much enlarged.

Case No. 6.—Japanese physician, age 33, previous history negative. He was taken ill with chill and elevation of temperature, followed by soreness and a great deal of pain in his back up to the lower point of the shoulder blade, and pain around the lower region of the liver, and especially over the seat of the gall-bladder. There was always tenderness on pressure over the gall-bladder region, and deep pressure was very painful. The temperature continued to rise a little more each day. The symptoms present were pain, tenderness on pressure, fever, and a very moderate amount of sweating.

After watching the case for a few days, I determined to operate on this man, and found a gall-bladder of natural size with livid, thick walls and congestion of all surrounding tissues. On following down the cystic duct many adhesions were found, and the parts were firmly matted together. In breaking some of these up, pus escaped. This opening was increased only so much as to allow free drainage. So far as the wound was explored, I could not tell what was responsible for the formation of the pus. All exploration that was prudent was done. The gall-bladder was opened, stitched to the peritoneum and drained. Nothing but thick, viscid bile was found in that organ. Adhesions were thick between the liver and diaphragm.

This case ran the most unfortunate course so far as infection goes, for everything happened except a general peritonitis. Pus formed between the liver and diaphragm and in every part of the wound in the gall-bladder, and he had the most aggravating septic temperature. In fact, it was the worst looking abdominal wound I ever saw. Emaciation was very marked, and after a period of about four months he left the hospital with a biliary sinus. He soon developed pneumonia, and recovered from that. The wound has entirely closed, and he has gone back to Japan.

As to the origin of the pus, I cannot say anything very definite, but I believe it to have been due to some disease of the peritoneum of the biliary passages. The condition of the gall-bladder indicates that there had been some inflammatory action as well as the matting of the tissues around the ducts. No stones ever passed from the wound, and none could be felt at the time of the operation. Then there was absolutely an absence of history of gall-stone colic.

Case No. 7.—Japanese boy, age 33, who had been in America only about six weeks. Had been attended by Japanese physician since his arrival on account of pain over the region of the gall-bladder. His previous history was negative. When I called, this Japanese physician said he had a case for operation on the gall-bladder, and when I saw the patient the liver outline and the distended gall-bladder were all traced on the skin. He denied ever having had hepatic colic or any previous trouble, and said that his present condition had existed only ten days. He had a temperature of 101 degrees, and a gall-bladder three inches long, easily palpated, extending towards the umbilicus.

He consented to an operation, which was done next day. The abdominal peritoneum was adherent to the gall-bladder, as were also the omentum and intestines. As these were loosened a large sphacelated area nearly an inch long and a third of an inch wide was seen on the lower border of the gall-bladder, thick pus escaped, in amount about six ounces. Ten or twelve small gall-stones were removed and one large one, pointed on both ends, at the opening of the cystic duct, which apparently completely plugged it. The sphacelated area was cut out, the gall-bladder and peritoneum stitched together and drainage placed in the gall-bladder, also below it.

This boy got out of bed that night and walked to the toilet and back, but in the morning had a pulse of 78 and a normal temperature. In five days bile began to flow out of the wound. The ducts were not explored on account of the danger from adhesions. Now, six or seven weeks after the operation, the boy is perfectly well and has no sinus.

I desire to mention one other case, that is not a gall-stone case at all; or, at any rate, so far as I know:

Case No. 8.—This woman saw me last fall, and had intermittent attacks of pain and what I took for gall-stone pain, but appeared to improve and finally I lost sight of her. She did not think she was sick enough for an operation. Last spring I saw her again, and it was decided to operate upon her. I had Dr. Eagleson see her in consultation, and he agreed on diagnosis and treatment. The operation was postponed for a few days, during which time she developed a violent peritonitis, for which I operated, and found an opening into the duodenum more than large enough to admit my finger. I simply washed and drained. The patient lived for four days. No autopsy was obtained.

This case, I believe, goes to prove that we may have some diseases of the duodenum that it is almost impossible to diagnose from gall-stone cases. This woman had evidently colicy pains, from what she told me, that would come and go, though she never at any time had any jaundice. There was tenderness on pressure, over the region of the gall-bladder and ducts, though no enlargement could be made out by palpation or percussion. On the other hand, the case, and my assumption about it, may be very different from what I thought. Though rather rare, gall-bladder and gall ducts or even the duodenum at the point of junction with the duct, may ulcerate and produce a communication with the peritoneal cavity, and, of course, a peritonitis following.

A physician told me of his wife's case, when an operation for gall-stones had been done and the gall-bladder emptied of a number of stones, but the common duct not even examined. Her pain and symptoms all continued till a Murphy button was used to establish a fistula between the gall-bladder and the intestine. The interesting part of the case is that for a few days she would feel very well, and then the gall-bladder would balloon up and be hard for a day or so till relieved again by some purgative. This case had, no doubt, left some place in the common duct an obstructive stone which, if it had been removed, would have relieved the condition and avoided the anastomosis which, at any rate, has not acted kindly.

APPENDICULAR DYSPEPSIA.*

By James B. Eagleson, M. D.

SEATTLE, WASH.

For more than a year past I have been firmly convinced in my mind that the dyspepsia and acute attacks of indigestion which precede many cases of appendicitis have no weight as an etiologic factor in this disease, but on the contrary, that they are the result of some irritation in or around this organ.

It has been recognized for a long time that local irritations in other parts of the digestive tract, the gall bladder and ducts, for example, will produce dyspepsia. Is it not just as reasonable to believe that indigestion will cause an inflammation of the gall bladder as it is to believe that it will cause an attack of appendicitis? There may be cases in which indigestion may irritate an already inflamed appendix but I believe it seldom, if ever, causes it.

I have searched the latest literature on the subject at my command and have been somewhat surprised at the meager references to the gastric disturbances in connection with the symptomatology of the appendicitis. Almost all the authorities, both medical and surgical, regard them as etiologic and not as symptoms of some pathologic change already taken place in the organ.

Hartly says, "indigestion appears to be a cause, in that the matter in the intestines taken in excess, poorly digested, and badly tolerated, provokes a catarrh and anomolous constriction of the intestine."

Mynter says, "constipation, diarrhoca, and digestive disturbances favor the development of appendicitis. These alone would probably not produce an appendicitis but add to them an abnormal position of the appendix, by which stagnation is favored, and the result will sooner or later be an attack of appendicitis."

Morris, (Robt. T.) speaks of gastric disturbances only in connection with the acute attacks of the disease.

Deaver, in his last edition, says that, "of the exciting causes of appendicitis, from a clinical point of view, disturbances of digestion are the most important. Such is the pre-eminence of these in the etiology of appendicitis, and with such constancy have they been observed that it is unhesitatingly asserted that appropriate inquiry will elicit a history of such disturbances in almost all cases." He goes on to state that the indigestion causes an increased virulence of the intestinal bacteria which in turn cause the inflammation of the appendix.

Fowler maintains the same theory and says, "in the rare instances in which the digestive disturbances seem to precede the development of the disease, the connection between the two occurrences may still be dependent upon bacterial agency."

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*Read before the King County Medical Society, Seattle, Wash., Jan. 19, 1903.

Talamon holds to the belief that "the erratic peristalsis produced by the presence of irritating material within the digestive tract determines the engagement of a stercoral calculus in the orifice of the appendix. This in turn gives rise to the symptoms constituting the first stage of the disease."

Anders says indiscretions in diet may precede a primary attack, and are of paramount etiologic importance in the recurrent forms of the malady.

Hawkins, in Gibson's Practice, makes mention only of the possibility of the presence of indigestible articles provoking disease in this rudimentary organ.

Hemmeter barely refers to digestive disturbances as a factor in the etiology of the disease.

Johnson (W. W.) says, "appendicitis is probably often the final stage in intestinal indigestion which leads to catarrh of the caecum and consequent multiplication of bacteria with infection of the local peritoneum."

McNutt, in Loomis' System, states that "indigestible and too highly seasoned foods, by provoking catarrhal conditions, by distending the bowels with fecal matter and gasses, are also etiologic factors."

Osler merely refers to the frequency in which inflammation of the appendix follows the eating of indigestible articles of food.

McBurney, in his article on appendicitis in the International Surgery, does not mention gastric disturbances.

Lockwood gives "the first phase as that during which ulceration of the mucosa is spreading, strictures are forming, and concretions growing. During this phase, the diagnosis is often easy, but may be difficult, and only accomplished after the patient has been kept under the closest observation. As we have seen, the symtpoms are obscure abdominal pains, settling at last in the right iliac fossa, indigestion, flatulence, disorders of the bowels, constipation or diarrhoea, capricious appetite, inability to eat fruit or vegetables, unpleasant taste in mouth, odors in the nostrils, slight variations in temperature, tender on pressure in the iliac fossa, slight muscular rigidity, tender in Douglas's pouch. At length a classical attack of appendicitis supervenes and may eventuate in abscess, perforating ulcer, or gangrene and their sequelae."

In the list of cases which he describes so minutely are several that give a history of gastric disturbances for months and years before any appendicular disease was suspected.

Ochsner, in a little work on appendicitis just issued, hits the nail squarely on the head when he says, "I have found many patients suffering from an acute attack of appendicitis, who had formerly suffered for a longer or shorter time from indigestion whose appendices contained fecal concretions which had evidently been present for a long time on account of the contracted condition of the lumen of the appendix at the point of entrance into the caecum. In most of these patients I have found that they have suffered severely from colicky pains in the region of the stomach or the appendix.

and that there has always been a marked degree of gaseous distension of the intestines. In children, almost every case which has come under my care the attack was primarily diagnosed, not as appendicitis, but as acute gastritis, and only after serious symptoms pointed to a localized peritonitis was the correct diagnoses made. In every instance the appendix contained fecal concretions; in almost all the appendix was either gangrenous or perforated. These facts, I believe indicate two things, First; many children who are supposed to suffer from acute gastritis are really suffering from appendicitis, from which they may die without the disease having been properly diagnosed; or they may recover and suffer secondarily from digestive disturbances until they have a recurrence, or until nature eliminates the effects of the primary attack by absorption."

During the past year I have operated on five cases which gave no history of any previous attack of appendicitis but every one had suffered for a longer or a shorter period from chronic indigestion. In each case one or more fecal concretions were found in the appendix. They have all been completely cured of the indigestion by the operation.

There is no doubt but that fecal concretions may be retained by the appendix for a considerable time without exciting an acute inflammation, just as gallstones may remain latent for years. In fact, Ribbert, in his necropsies, claims to have found concretions in about ten per cent. of all normal appendices.

Since the plentiful nerve supply of the appendix is intimately connected with the superior mesenteric and solar plexus, it is but reasonable to believe that the irritation caused by fecal concretions in the appendix will cause more or less disturbance of the gastro-intestinal canal.

There is no doubt in my mind that there are quite a number of cases of chronic indigestion resulting from some irritation of the appendix, and, that sooner or later these cases will develop an acute attack of appendicitis. Ochsner says, "I am certain that in many cases suffering from chronic digestive disturbances it is well to look for a chronic appendicitis."

Longuet, in a recent article on "Appendicular Dyspepsia" in the *Semaine Medicale,* reports two personal cases and twenty-eight others gathered from the literature on appendicitis in which the dyspepsia was caused by some disease of the appendix. Of these thirty cases twenty-five were promptly and radically cured after the appendectomy, although the dyspeptic symptoms had lasted from one to twenty years.

In cases giving no history of any previous appendicular trouble the origin of the gastric symptoms may not be revealed, unless a tenderness is discovered on palpation at the McBurney point, or an acute attack of appendicitis occurs. In other cases the diagnosis may be made almost positively by a history of an inflammation or pains in the region of the abdomen, probably many years before.

As quoted from Ochsner above, no doubt many suffer from more or less acute attacks of appendicitis during infancy and early childhood which are unrecognized, and I see no reason why the results of these attacks may not cause gastric disturbances in later life. As a proof of the great frequency of inflammation in this organ, Byron Robinson claims that in two hundred and thirty autopsies he found evidences of chronic inflammation of the peritoneum around the appendicular region in seventy per cent. of the cases.

Of this class of cases Ochsner says, "the appendix may be adherent to the ilium causing more or less acute flexure, or it may be surrounded by a portion of omentum which interfered with the ilium at the point of crossing; or the caecum, the ilium and appendix may be drawn down into the pelvis by adhesions in this region. In fact, any one of a dozen conditions may be present as a result of adhesions in different locations caused by a former appendicitis. In such cases the subsequent attack is frequently supposed to be caused by the chronic indigestion while, as a matter of fact, the latter is due to the former attack of appendicitis, and the recurrence is due to the presence of infectious material and an abraded surface in what is left of the diseased appendix, in which the normal drainage has been impaired by the cicatricial tissue deposited during the recovery from a former attack. These facts can be established by carefully studying the history, and by noting the pathologic condition at the time of the operation."

We thus see the theory that the dyspepsia is an etiologic factor controverted by the fact that in most if not all of these cases it is a result of appendicular irritation. To me, the most convincing argument is the fact that the dyspepsia is cured and stays cured after the operation, while if the dyspepsia was the cause of the appendicitis the removal of this organ would not cure the gastric disturbances, but they would continue just the same as before the operation.

When we have carefully studied a case of chronic indigestion and have determined fully that the cause is some irritation of the appendix, after a faithful course of medicinal treatment without any relief to the patient, why should we let him continue to drag out a miserable existence, and then sooner or later have him suffer an acute attack of appendicitis? I believe in such cases that it is not only justifiable, but that the only rational and scientific treatment is to resort to surgery for the removal of the appendix.

From my study of this subject I have come to the following conclusions, viz.:

1. There is a form of dyspepsia of appendicular origin.

2. In one class of cases it is largely reflex, depending upon the presence of a fecal concretion within the organ, or a slight ulceration or catarrhal condition of its mucosa.

3. In another class of cases it is mechanical, caused by an obstruction or irritation resulting from adhesions following a more or less acute attack of inflammation at some previous time.

4. These cases are cured by surgical interference.

5. In all cases of chronic dyspepsia the condition of the appendix should be carefully investigated.

6. When a chronic dyspepsia has resisted all medicinal treatment and its origin has been diagnosed as appendicular, an operation should be advised.

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NORTHWEST MEDICINE.

CLARENCE A. SMITH, A. B., M. D., Editor in Chief.
JAMES B. EAGLESON, M. D., Managing Editor.

Published Monthly by the Washington Medical Library Association.

Editorial and Business Office - - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.

Application Made at the Seattle Post Office as Second Class Mail Matter.

VOL. 1. FEBRUARY, 1903. NO. 2

THE BUBONIC PLAGUE.

During the past two and a half years, while the plague has been known to exist in San Francisco and the country at large has witnessed the discreditable efforts of the state and city officials to blind the eyes of the world to the facts, proven by local, Federal, and other scientific workers, the fears of its introduction into other sections have been allayed by the confinement of the dreaded disease to San Francisco and its immediate vicinity. Yet uneasiness has constantly prevailed on the Pacific Coast and speculations have been ventured as to when and where it would next appear. Now it seems that the inevitable has occurred, and the claim of its existence in certain Mexican cities, imported directly from San Francisco, remains unchallenged.

If it is true, as has been stated, that the plague is most prone to follow the routes of the shipping, no portion of the coast is subject to greater menace than that tributary to Puget Sound, with its extensive maritime connection with the California metropolis. In view of the existing situation, it is useless to vent our spleen on those whose misguided disregard of the real facts of the disease has helped to foster and spread it. We must face the possibility of its introduction into the northern cities and prepared to cope with it. The British Columbia authorities have already anticipated us in establishing active measures to meet future contingencies. The Provincial government early acquainted itself with the true situation by sending a medical representative to San Francisco to study the disease in person, and the cities across the border are already prepared to dispose of cases that may arrive and to establish a quarantine whenever it seems advisable.

Heretofore we have seemed content to exclaim, "we are in no real danger, our Federal quarantine officers will protect us against an invasion of the disease." But since it has appeared at a distance from the original focus, the state and local boards of health on the northern coast have realized that they, too, must be armed and ready for a possible struggle with it.

Whatever general or specific measures may be adopted for averting the reception of infected persons, we wish, in a forcible manner, to call the attention of boards of health of the Puget Sound cities to the fact that there is absolute ignorance of the disease, as concerns personal knowledge, on the part of the medical profession of the Northwest. While we are familiar with the symptoms and treatment of all ordinary diseases, the previous absence of this from our land has prevented the actual study of the plague. In no aspect of the affairs of life is experience of such vital moment as in medicine. It decides the selection of a practitioner by the patient, assures the success of the former, and often turns the scale for life or death. Is it not, therefore, incumbent upon the health authorities at this time to secure a familiarity and experience in bubonic plague, that will serve as a protection against a future incursion of the disease?

We feel it the duty of the cities of the Puget Sound district, especially the larger ones as Seattle, Tacoma and Everett, to commission a competent physician to visit San Francisco and institute a personal study of the plague, where alone it can be investigated in our own land, thus familiarizing himself with its bacteriology, symptomatology and treatment, according to approved methods in vogue today. The necessary expense incurred may well become a profitable investment if the first case to reach our shores can thus be early detected, isolated and properly treated.

These suggestions are intended to cast no strictures upon any inspection or quarantine measures that may be adopted. The danger is sufficiently imminent to warrant the anticipation of the approach of the disease, should it escape preventive measures and appear in our midst. Such action is comparable to that of the successful merchant, whose prosperity demands the expenditure of time and money to forestall the fluctuations of the market rather than risk pecuniary loss. But we are now considering the protection of the most precious thing on earth—human life,—to accomplish which no sacrifice is too great and no financial expenditure unwarranted, however extensive.

TUBERCULOSIS AND SYPHILIS.

The twelfth United States census shows a diminished death rate for tuberculosis of 188.5 per hundred thousand inhabitants, as compared with 247.3 of the previous census. These figures represent the results of the work of a decade in ameliorating the ravages of this ever-present malady. During this period, workers throughout the world have demonstrated the curative effects of out-of-door and sanatorium treatment. More extensive efforts have been made than ever before to bring a ray of hope to the helpless, consumptive poor through the generosity of philanthropists, as well as appropriations of state and municipal funds. So universal has become the knowledge that this is a contagious, preventable disease, that the presence of a victim of pulmonary tuberculosis is no longer welcome in many communities, while the man with a cough, who ventures to expectorate in public, will probably be made to feel that he is classed as a criminal.

In the meantime what are we doing to limit the extension of that other most typically contagious, preventable disease, syphilis?

We do not now propose to discuss the relations of this subject to public prostitution. Those who play with fire must expect to be burned. Only the members of the medical profession realize the number of innocent people, in any large city, who carry through life, and transmit to posterity, the stigmata of this ailment, contracted through no fault of theirs. Dr. E. Harrison Griffin, in the *Medical Record* of Dec. 27, 1902, presents a vivid picture of its daily transmission in New York city, through a variety of easily prevented sources of infection. He cites the public drinking fountain, especially patronized by wandering syphilitics and children, provided with a tin cup whose edges are twisted on a wire as if intended to serve as a receptacle for the virus from syphilitic lips; the Italian fruit vender who dispenses his wares, polished by a handkerchief and saliva fresh from a mouth full of mucous patches, whose victims the writer has treated; the man with mucous patches who sells rubber toys to children after blowing them up for exhibition: the public urinals of the parks, of a uniform height, a most convenient receptacle for the virus from the initial lesion. He refers to the habitual practice, seen in syphilitics, of picking the lips and gums, thus transferring the virus to fingers, face and anything touched by hands. It is common enough to find the victims of street brawls, with initial lesions on fingers or face as souvenirs of an encounter with the teeth of a syphilitic antagonist. The smokers might be reminded of the custom of certain syphilitic cigar makers of moistening the wrappers with their tongues.

The remedy for these transgressions is easily suggested. Replace the tin cup by a glass, whose resting place will constantly bring it in contact with running water; abolish the old style of public urinal; spread knowledge among the people of the non-venereal features of syphilitic contagion. Unfortunately the ordinary sexual means of transmitting the disease has caused the subject to be tabooed and universal ignorance prevails as to other sources of infection, to a degree that is not true of any other contagious disease.

It is well known that syphilis prevails to an extraordinary extent on the Pacific coast. As our cities increase in size the above mentioned conditions will be represented in a more marked degree with advancing years. As these innocent victims multiply, measures should be adopted for their protection. It is customary in many venereal clines to present a card of instruction to all syphilitic patients, with warnings as to transmission and suggestions for the protection of others.

Since the spirit of paternalism is now becoming so general, as displayed in the enforced measures to protect the public from tubercular contagion, why should it not also be extended to syphilis? It would be perfectly legitimate to require inspection of the mouths and persons of those who are in a position to convey the disease, in circumstances similar to those cited above. Circulars for distribution among the public, concerning the prevention of tuberculosis, might well include instruction on the contagion of non-venereal syphilis and the measures of avoiding it. Let us by all means suppress the prevailing prudish sentiments as to this malady and place it where it belongs—among the contagious, preventable diseases.

We appreciate the expressions of approval, received from many sources, on the appearance of our first issue and are grateful for the good will entertained by our friends, as to our future prosperity. We would take this occasion, however, to remind our constituents that, to attain this desired end, we need their financial and literary support. We must have their subscriptions to the Journal in order to reach them with it and their own scientific productions to establish the standard which they themselves would have exist. We believe we can provide a stimulus to the profession of the Northwest and assist in maintaining a live interest in the best medical thought and progress of the day, if we work together and exchange mutual sympathy and support.

We realize that the greatest benefit from a thoroughly well prepared paper for publication accrues to its author, whatever degree of instruction or entertainment may be imparted to others. It is this sort of individual improvement that we would assist in obtaining, at the same time entertaining the selfish purpose of strengthening NORTHWEST MEDICINE.

Although we published a large issue last month, it has inadvertantly become exhausted so that we have only a few copies remaining for future office uses. We would therefore request those having copies of the January number of NORTHWEST MEDICINE, which they do not care to preserve, to mail them to this office, for which we will pay ten cents a copy.

We wish to solicit from our readers, reports of unusual or interesting cases, too brief perhaps, for a completely written paper, but suitable for recording under "Clinical Notes." Many matters of value to the profession can thus easily be recorded which otherwise will be neglected and never become available for further reference. We wish our pages to be utilized for whatever will be of benefit to the profession.

ERRATA.

The three lines at the foot of page 1, in the January issue, in Dr. Webster's article on The Etiology of Eclampsia, should have been inserted between lines 12 and 13 on page 4 and read, in continuity, as follows: "Klebs advanced the suggestion that thrombi formed of liver cells displaced by pressure on the liver in pregnancy and labor might have something to do with eclampsia. The thrombi described by Klebs are probably the same as those noted by Schmorl and others, who state that these may be primary or embolic, being found both in veins and arteries. He thinks that the toxic agent which causes the coagulation probably induces eclampsia, and suggested that it is a ferment, possibly related to the placenta."

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, D. A. MITCHELL, M. D.; Secretary, G. S. PETERKIN, M. D.

The annual meeting of the King County Medical Society was held on the evening of Jan. 5, 1903, at the Rainier-Grand Hotel, the President being in the chair. Dr. Carl Hoffman acted in place of the Secretary who was absent. The reports of the Secretary and Treasurer for the past year were read and referred to the auditing committee.

The election of officers for the year resulted as follows: President, J. P. Sweeney; Vice-President, E. E. Heg; Secretary, Carl Hoffman; Treasurer, James Shannon. The president later appointed the following committees. Program and Scientific work, Carl Hoffman, C. A. Smith, R. W. Schoeule; Public Health and Legislation, A. B. Kibbe, M. E. A. McKechnie, H. S. Lyons; Admission and Ethics, H. S. Holmes, Alfred Raymond, F. B. Whiting, C. H. Thomson, Kenelm Winslow.

The meeting adjourned to the banquet room, where plates were set for fifty-five members and guests. Dr. Sharples acted as toast-master and introduced the retiring president who delivered an address on "The Organization of the Medical Profession." The president-elect followed with suitable remarks. Dr. C. A. Smith replied to the toast, Medical Journalism; Dr. R. W. Schoenle to American Students at European Clinics. Drs. Holmes, Heg, Shannon and Young replied to impromptu toasts.

President, J. P. SWEENEY, M. D.; Secretary, CARL HOFFMAN, M. D.

The regular semi-monthly meeting of the King County Medical Society was held at the Chamber of Commerce on the evening of January 19, 1903, with the president in the chair. Forty members were in attendance.

Dr. Smith gave a report of the Committee on Program, outlining the work proposed for the society for the ensuing three months.

The president invited Dr. Bean, of Ellensburg, to sit on the platform and participate in the discussions of the evening.

Dr. Smith spoke on the proposed plan of dividing the society into sections for the purpose of accomplishing more and better work. On his motiou the president appointed a committee, composed of Drs. Bickford, Peterkin and Randell, to report at the next meeting as to the advisability of such a procedure and the details of the same.

Dr. Schoenle presented a patient, age 65, with Elephantiasis of the legs whom he had treated for about seven months. He had been in the hospital for a year previous, under treatment for organic heart disease. He has had eczema of the legs for more than six months. No kidney lesion. Two and one-half months ago the left calf measured 20 and the right 19 inches in circumference. Now they are 14 and 13. The feet have been reduced from 14 and 13 inches respectively, to 10 each. Feet and legs present masses of hard, thick tissue, the same extending to the thighs, to a much less degree.

The treatment has consisted of applications for the eczema and compression with roller bandages. Dr. Schoenle stated that when the eczematous condition had sufficiently improved he proposed trying massage.

Dr. Eagleson read the paper of the evening on Appendicular Dyspepsia (see page 92).

Dr. W. A. Shannon thought the writer had presented his views in an able manner and if carried to their logical conclusion would greatly enlarge the field for surgery. He could not agree that appendicitis is the cause, but rather the result of the dyspepsia. The latter induces activity of the bacteria of the intestines, which infect the appendix and hence cause the inflammation. He was reminded of a paper by a Denver physician who proposed the theory that the appendix has a function, namely, the production of a certain secretion that causes constipation. Therefore its removal cures the constipation. This theory is incredible. It is said that Americans and English have more appendicitis than those of other nationalities. This is due to their being great meat eaters. This furnishes an undue amount of nitrogenous food which induces intestinal disturbance and resulting appendicitis.

Children have more catarrhal intestinal inflammation than adults and hence we might expect them to produce more cases of appendicitis but we know the contrary to be true. The relations of the two disorders are not yet settled but the conclusions of Dr. Eagleson are not sound nor proven.

Dr. C. H. Thomson called attention to the fact that in the New York Infant Asylum he had observed a great many children with chronic digestive troubles from birth and that many of these had appendicitis.

Dr. Heg read an abstract recently from a German paper, in which the same claim was made as that of Dr. Eagleson. At the time he thought there was considerable force to it but he agreed with Dr.Shannon that the case is not proven. Yet all operators remember cases of indistinct symptoms where the removal of the appendix has been followed by the cure of long standing digestive disturbances. He cited the case of a young woman of nineteen who had consulted several physicians for long continued digestive troubles. He found slight tenderness in the right iliac region. She was cured by an appendectomy. Last summer he removed the appendix from a boy who had had indefinite digestive symptoms for four years. At this time he had an acute attack of appendicitis. A cure followed the operation.

As for infants, it always seemed to him that the intestinal end of the appendix was more open with them and consequently better drained. Yet we sometimes see chronic cases with them.

Dr. DeBeck recalled a case he had observed some years ago, where the patient had been shooting with a Flobert rifle. While holding some cartridges in his mouth he swallowed one of 22 calibre. A period of digestive disturbance followed, thought to be due to the presence of the bullet in the intestine. During a subsequent attack of appendicitis the operating surgeon found the bullet in the appendix. Here was a starting point for the attack.

Dr. Read thought that Dr. Eagleson would not have the temerity to claim that all cases of dyspepsia were due to appendicitis. Children, the victims of errors of diet, who have acute attacks of indigestion, whose stomach contents are found normal after a test meal, may have the cause of the trouble elsewhere, as in the bile ducts, ulcer of the rectum, fissure of the anus, etc. Take adults with vicious habits, who use an excess of alcohol, where the examination of the stomach contents shows a diminution of hydrochloric acid and digestive ferments, sclerosis of the liver and other abnormal conditions. Here one could not lay the cause to the appendix. Then there is the group of cases associated with disturbed function of the gall bladder. These must be considered by themselves.

But take cases of indigestion with colic and occasional rise of temperature, in whom the stomach contents are normal, no jaundice, ulcer of the rectum, fissure of the anus or like disorders. Here the cause may be appendicitis and a study of symptoms may disclose the fact. He related a case that he had treated for five years, who went through the hands of several other physicians, later had a typical attack of appendicitis, was subjected to an operation and was cured of the original symptoms.

He did not think Dr. Eagleson meant to say that all cases of dyspepsia were caused by appendicitis, nor did they induce it. It is well to be conservative as to the cause of each disease and their mutual relations.

Dr. Bean mentioned that a recent writer stated that nearly all cases of dyspepsia were due to gall stones and that an operation would find them. We should always eliminate the gall bladder in these cases. He referred to the fact that many cases of pelvic disorders with dyspeptic symptoms were cured of the latter after the preliminary and subsequent treatment to an operation. He could not say how much the cure was due to one or the other.

In conclusion Dr. Eagleson said he hoped the members would not think he meant to say that all cases of dyspepsia were due to appendicitis but many were. He observed that nearly all the speakers cited cases that supported his theory. By a process of elimination, if usual treatment does not relieve the symptoms, special care may locate the trouble in the appendix. There is no reason why constipation may not be caused by adhesions and inflammations about the appendix. Flatulence was often thus caused. He believed with Dr. Heg that the appendix of children is more patulous than in adults and hence the drainage is better. In old people the opening is often obliterated. He believed that, in the cases mentioned by Mr. Bean, adhesions in the pelvis often caused the dyspeptic symptoms and their relief cured the indigestion.

CHEHALIS COUNTY MEDICAL SOCIETY.

President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

A special meeting of the Chehalis County Medical Society was held at Hoquiam, on the evening of January 13, 1903. The following members were in attendance: Drs. Pearson, Scamell, Stepp, Schumacher, Overmeyer, of Aberdeen, McIntyre, Wells, Campbell, Frary, of Hoquiam. As visitors, Drs. Hough of Detroit, Mich., and Snow of Nome, Alaska.

The following program was presented: The Diagnosis and Treatment of Chronic Ovaritis, by Dr. G. W. Overmeyer of Aberdeen; Lobar Pneumonia—Treatment and Prognosis, by Dr. Schumacher, of Aberdeen; Compound Fracture of Femur—Its Treatment, by Dr. H. Watkins, of Cosmopolis; Appendicitis—Diagnosis and Treatment, by Dr. McIntyre, of Hoquiam.

The meeting was interesting and profitable; one of the best the society has ever had. The next meeting will be on April 7, at Montesano.

WHATCOM COUNTY MEDICAL SOCIETY.

President, W. H. Axtell, M. D.; Secretary, A. M. Smith, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held January 12, 1903, the president being in the chair.

The minutes of the last meeting being read and approved, the favorable report was presented of the investigation committee, on the application for membership of Dr. Gosnell, who was duly elected. The secretary reported that copies of the by-laws of the State Medical Society had been forwarded to the members, as a result of his communication with Dr. Coe, of Spokane. The secretary was instructed to draw upon the treasurer for payment of hall rent for the past quarter.

The committee on condition of roads, reported that the streets to St. Joseph's hospital would soon be improved.

The following were elected officers of the Society for the ensuing year: President, Dr. Holt; Vice-President, Dr. Biggs; Secretary, Dr. Van Kirk; Treasurer, Dr. Markley. The standing committees of the past year were re-elected. The treasurer reported a balance on hand of $41.

Dr. Teel gave notice of an amendment to the by-laws, making the annual dues $4, instead of $2, to comply with the laws of the State Society, which will assess each member two dollars.

The discussion of the evening was upon Influenza, it being opened by Dr. Axtell, who reviewed the history of the disease, its etiology, symptomatology and therapeutics. He remarked upon the variability of its attack, and showed the tendency of each year to introduce a new type. A general discussion followed, throwing much light upon the different phases of the disease.

Visitors present were Drs. McDonald and Smith, of Kansas; Grey, of Fairhaven. The meeting adjourned to the second Monday in February.

SOUTH IDAHO DISTRICT MEDICAL SOCIETY.

President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.

The mid-winter meeting of the South Idaho District Medical Society was held in the parlors of the New Columbia Hotel at Shoshone, January 7, 1903, the President being in the chair. The program comprised the following symposium on Croupous Pneumonia:

Section 1. General and Special Symptoms, by Dr. B. L. Steeves, Weiser; Section 2. Physical Signs, by Dr. J. W. S. Emerson, Shoshone; Section 3. Clinical Varieties and Terminations, by Dr. W. F. Smith, Mountain Home; Section 4. Symptoms of Atypical Varieties, by Dr. L. C. Bowers, Boise; Section 5. Diagnosis and Differential Diagnosis, by Dr. George Collister, Boise; Section 6. Etiology, by Dr. W. J. Middleton, St. Anthony; Section 7. Pathological Anatomy, by Dr. J. J. Hamilton, Caldwell; Section 8. Complications and Sequelæ, by Dr. G. N. Waterhouse. Weiser; Section 9. Prognosis, by Dr. J. R. Numbers, Weiser; Section 10. Treatment, by Dr. Ed. E. Maxey, Boise.

The following resolutions were unanimously passed:

RESOLUTION NO. 1.

Whereas, The Fraternal Order of Eagles have embodied in their constitution an obligation to furnish medical and surgical attention to their members and families free of charge; and

Whereas, The order is attempting to hire physicians to undertake this duty, at the ridiculously small compensation of fifty cents (50 cents) a quarter per member; and

Whereas, No reputable physician will give his time and attention for this small pittance, therefore be it

Resolved, That it is the sense of this body that any physician accepting such a position with any fraternal or other institution paying less than a reasonable compensation, is not a reputable physician and will not be eligible to membership in this body. Be it further

Resolved, That this resolution be ordered printed and a copy sent to every member of this association.

RESOLUTION NO. 2.

Be It Resolved, That no member of this association accept less than two dollars ($2.00) for examination for life insurance, where urinary analysis is required.

The next meeting of the society will be held at Boise City, Idaho, April 9, 1903. The subject of the symposium will be "Rheumatism."

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINES AND NERVOUS DISEASES.

Edited by

C. W. Sharples, M. D.; H. M. Read, M. D.

Malta Fever. Its Occurence in the United States Army. (Chas. F. Craig, M. D. Amer. Journ. of Med. Sciences, Jan. 1903.)

The medical officers of the English army first drew attention to the presence of a distinct disease prevailing in Malta and other Mediterranean ports that much resembled typhoid fever. It was at one time considered to be a type of remittant fever. First reports described it as peculiar to Malta, but later observations show that it occurs in other tropical and semi-tropical countries.

Bruce demonstrated that it depended on a micrococcus, called the "micrococcus militensis." It is a fever of long duration, subject to frequent relapses, presenting a most irregular temperature course, accompanied by severe pains in the joints, constipation, profuse perspiration and quite often having as a sequel, pains in the joints, with or without swelling. The diagnosis between that, remittent fever and typhoid, even after the introduction of the Widal test, was not an easy matter till Wright showed that a diluted solution of the blood of one suffering with Malta fever, added to a culture of the micrococcus militensis, caused an agglutination of the micrococci, and demonstrated that this test can be depended on absolutely. The author of this article uses practically the same technique as that of the Widal test, employing either fresh or dry blood. A drop of blood is diluted with enough sterile water to dissolve it. A graduated pipette of very small caliber is used for making the dilution. A known portion is taken from the pipette and put upon a slide, and this in turn is diluted with a measured quantity of the bouillon culture, or with a suspension of an agar culture made with sterile water. This is then examined microscopically. The usual working dilution is 1:75, through the reaction occurs with as high a dilution as 1:250. The temperature charts of Malta fever are of no value in making a diagnosis. Many cases are, after the acute febrile course is finished, mistaken for chronic rheumatism. But few of the cases described would cause one to suspect the true condition.

The object of this article (as I take it) is to point out the necessity of the blood test and the present impossibility of making a diagnosis, at least in our country, without making the blood serum test for, as the writer says, there are no pathognomonic symptoms, and those observed are so confusing and inconsistent that no one of them can be said to be typical of the disease. Sharples.

Uncinariasis. (James Capps, M. D., Journ. of the Amer. Med Assn.)

The Uncinaria or hook worm is of the family of Strongylidae. The parasite is characterized by a dorsal curature of the anterior end of the body resembling a hook, and the mouth is armed with teeth of great penetrating power. They are an half inch to an inch in length and suck blood from the intestinal wall.

Eggs are cast off in the stools and under favorable circumstances develop into larvae, in from 24 to 36 hours, which in turn become full grown in 8 days. The larvae are swallowed by man, take on a new growth, being nourished by the blood. In two weeks' time the skin is shed and the sexual organs develop, and in 5 weeks time the worm is 10 to 20 times the length of the full grown larva.

Uncinariasis is common in the Philippines and has been seen a few times in the United States. California has contributed three cases. The diagnosis is to be made from the eggs in the stools. These eggs can be cultivated in the stools better than in any other culture medium.

The symptoms are severe, colicky pains in abdomen, nausea, vomiting, diarrhoea and anaemia, while in the more profound cases we find dizziness, dyspnoea, haemorrahages, oedema and exhaustion. Probably those having been made the receptacle of only a small number of worms, show only vague symptoms of malaise, indigestion and malnutrition.

Examination of the blood shows a condition resembling pernicious anaemia. Occupations in which one handles dirt and mud should in cases of inexplicable anaemias direct our attention to uncinariasis. The eggs resemble those of the Oxyuris Vermicularis, but with the difference that the latter are flattened at the ends.

Thymol is the best anthelmintic. The bowels should be moved thoroughly before the thymol is administered, which is then to be given in two grain doses, repeated in two hours, and followed by a saline.

Prevention is accomplished by draining swampy land, exclusion of infected persons from working gangs, burning of infected faeces, proper cleansing of the hands and a pure water supply. SHARPLES.

HEART DISEASE, DIAGNOSIS. British Med. Journ., Nov. 8, 1902.) Dr. Drummond says that a murmur must not be taken to necessarily mean a lesion. Alcohol, he remarks, acts inimically upon the heart, and may cause grave lesions. It is a common cause of permanent mitral regurgitations, and a heart poisoned by this toxic agent is most insecure, and exposes the patient to risks of sudden death. The prognosis is always grave, but the danger is greatly increased when a chronic kidney lesion is associated with the heart weakness. The absence of history of rheumatism in a case of heart disease in middle life should suggest the next cause in order of frequency, which is probably syphilis. One of the most valuable physical signs of cardiac disease, complicating kidney disease, is a reduplication of the first sound, which points to the renal origin of the cardiac disturbance, and indicates that compensation has begun to fail. Under these circumstances a systolic mitral murmur can often be brought out by placing the patient on his left side. It may be difficult and even impossible to recognize slight degrees of dilatation of the heart, but, as a rule, more reliance is to be placed on careful observation of the general symptoms in addition to the usual physical signs of cardiac failure, than upon parcussion. READ.

SCARLET FEVER, SERUM TREATMENT. The Philadelphia Medical Journal of Nov. 8, 1902, referring to the clinical work of Dr. Paul Moser as published in Weiner Klinische Wochenschrift, Oct. 9th, 1902 shows remarkable results with a serum prepared by himself. He obtained the serum by inoculating horses with cultures of streptococci, obtained from the heart's blood of patients who died of scarlet fever, and which cultures he had successfully grown upon boullion. The serum obtained from the blood of these horses was used in the treatment of scarlet fever in children, in doses of from 30 to 180 c. c., but seldom repeated. The larger dose is the more efficacious, and all injections should be made as soon as possible. Of 81 cases treated by Moser with the serum, 5 were mild, 17 moderately severe, 28 were serious, and 34 grave. Of the 34 grave cases, 15 died, with only one death in the serious list. The death rate was only 9 per cent., in the face of a large number of very grave cases. The death rate in all the other Vienna hospitals for the same year was over 13 per cent.

Following the injection a marked improvement in the general condition occurred; the rash often failed to develop any further; nervous, gastro-intestinal, and nose and throat symptoms disappeared in 24 hours. The pulse, respiration, and temperature frequently fell instead of rising with the appearance of the eruption. Cardiac weakness rarely developed. No marked difference was noted, however, in the occurrence of nephrites and otitis media. Patients treated with the serum had short attacks, with early convalescence. In his earlier experiments Moser found streptococci in 63 out of 99 bodies of children dead from scarlet fever. The description of the excellent results achieved by his serum was read before a meeting of German Naturalists and Physicians, at Carlsbad, last September. Dr. Moser has been in charge of the department for infectious diseases in the St. Ann Hospital for children, at Vienna, for five years. The Austrian government has appropriated a large sum of money for the preparation and distribution of this serum in large quantities.

READ.

DISEASES OF CHILDREN.

Edited by

G. B. McCulloch, M. D.; C. B. Ford, M. D.

Rickets in Infants (Medical Record, Dec. 27, 1902).—Dr. E. M. Sill calls attention to the danger of causing rickets in infants when fed exclusively on sterilized or Pasteurized milk.

He has observed 179 consecutive cases which have been fed during a period of from 3 to 18 months on Pasteurized or sterilized milk. This milk was supplied from a well-equipped milk laboratory, in all cases carefully modified to suit the age and condition of each child. Of the children so fed, 97 per cent. showed unmistakable signs of rickets or scurvy, most of the cases being rickets or a combination of rickets and scurvy, the one merging into the other.

About forty of these children had from 5 to 7 feedings of the sterilized or Pasteurized milk, according to the time of the year, each day supplemented by breast feedings. These all had signs and symptoms of rickets, but not so marked as in those who were fed exclusively on Pasteurized or sterilized milk. The changes which were most frequent were beading of the ribs, pot belly, sweating about the head, flabby muscles, craniotabes and restlessness at night. The later changes were, in addition to those already enumerated, large, square head, enlarged epiphysis, delay in eruption of teeth, constipation or diarrhoea, malnutrition, bow legs, kyphoses, chicken breast, horizontal ring and open fontanelles.

Uncontaminated milk is necessary for successful infant feeding and contaminated milk, no matter how carefully modified or Pasteurized, will cause disordered digestion and improper assimilation in the young child.

Winter says: "I have seen scurvy where Pasteurized, modified milk has been the only food. Recovery was rapid with the continued use of the same food raw." Again: "Fresh, pure milk is not improved by Pasteurization; it is not more digestible, and it is in no way a better food for an infant." Sterilized or Pasteurized milk is to the infant what canned or salt food is to the sailor.

In order to obtain pure milk the herd should be subjected to the tuberculin test. The cows must be groomed, the teats and the udder and the milkman's hands, thoroughly washed and dried before milking. The milkman should wear clean, washable clothes and the milking should be done in a building away from the stables. The cans should be clean and the milk rapidly cooled to 40 degrees Fahrenheit. Cow's milk is generally acknowledged to be the best substitute for mother's milk, when properly prepared, but cow's milk is not bettered by sterilization or Pasteurization; on the contrary this treatment undoubtedly makes it the direct cause of rickets, scurvy and kindred diseases in children. FORD.

SUMMER DIARRHOEA IN INFANTS (Medical Record, Aug. 23, 1902). Dr. Martin J. Synnott says that summer diarrhoea in infants and young children is due, in almost every instance, either to contaminated food or to food of improper quality or quantity. It is a communicable disease. Bottles, nipples, cooking utensils and the hands of the mother should receive scrupulous attention. Attacks vary in intensity from the simple cases with 2 or 3 moderately loose movements daily, containing undigested milk and mucus, to the much dreaded cholera infantum. Hot weather influences both the food and the child. If the milk is not kept at a proper low temperature the bacteria present rapidly increase and harmful chemical changes take place. The child is affected by the summer heat because of lowered vitality and lessened resisting power. The functions of the liver and stomach are less active and in consequence, less gastric juice and bile are secreted.

In hot weather milk should always be Pasteurized or sterilized. After either process rapid cooling is of great importance, for, if allowed to cool slowly, the remaining spores of the bacteria develop new activity in the warm milk.

The writer has no patience with those physicians who claim that sterilizing is harmful and "takes the life out of the food."

An accurate differential diagnosis of the precise lesion and its location is not essential. The first essential point in the treatment is to stop milk feeding at once, whether the child has been breast fed or not, for a period depending upon the severity of the case. In the breast-fed baby 8 to 24 hours is a sufficient period to stop the milk feeding; then it may be resumed, but each nursing preceded by one to two ounces of sterile water. In the bottle-fed baby, milk feeding should not be resumed until the movements are nearly normal, and then largely diluted with water and carefully modified to suit the patient.

Instead of milk in the bottle-fed, some bland, nourishing and easily digested substitute must be provided. After an initial dose of castor oil or calomel, no food at all should be allowed until all curds and undigested food have been expelled from the bowels. If movements are loaded with curds repeat oil in 4 or 5 hours. During this interval sterile water, preferably warm, may be freely given. When food is again allowed, a smaller amount must be given. In the very young, dextrinized barley gruel is the most available substitute. In addition to the gruel, demulcent drinks are often grateful. Animal broths of mutton or chicken may be added to the gruel, also beef juice in teaspoonful doses. As the condition improves, sterilized whey made from fresh milk and diluted one-half with arrowroot water or sterile water may be given.

Bowel irrigation is indicated only in cases when there is no tenesmus, where the movements are infrequent, very offensive in character and contain much mucus. The cases of very severe onset require very prompt and thorough treatment. Wash out stomach, irrigate bowels and give two drachms of castor oil. Stop all food. If fever is high, cold pack. In collapse, a hot saline enema at 100 degrees Fahrenheit, is a valuable and ready stimulant. If stimulants are required, give hypodermics of strychnine, atropine, or digitaline. Warm fomentations over abdomen, with a mild counter-irritant, such as five minims of oil of mustard to the ounce of camphor liniment, applied to the skin, are grateful to the patient and help to relieve the pain. In exceptional cases morphine may be given for pain. The drugs to be used after the initial dose of calomel or castor oil are few. When diarrhoea continues, bismuth or Dover's powder is of service. To stop the diarrhoea suddenly is not our object. After the acute stage has passed a mild intestinal astringent is of value. Tannigen alone or combined with bismuth is a valuable drug at this time. It may be given preferably in powder, mixed with a teaspoonful of cold water, every 3 hours. The child must receive proper care and intelligent nursing. It should be kept in as cool and dry an atmosphere as possible. In the country a shaded piazza is the most desirable place. Quiet is very essential. In extremely hot weather frequent bathing, two or even three times a day is very beneficial. Every possible source of irritation or annoyance to the child is to be sought for and relieved. Inflamed gums from erupting teeth should be incised; chafed groins and excoriated buttocks should receive appropriate care and no detail is too trivial to receive attention from the physician, nurse or mother.

FORD.

OBSTETRICS AND GYNECOLOGY.

Edited by

P. W. WILLIS, M. D.; W. A. SHANNON, M. D.

THE EFFECT OF REVACCINATION DURING PREGNANCY ON THE CHILD. (British Medical Journal, December, 1902.)

Dr. J. W. Ballantyne, in his "Manual of Antenatal Pathology and Hygiene," gives some interesting figures to prove that in some instances the revaccination of a pregnant woman may render the infant temporarily insusceptible to vaccination after birth. Dr. Ballantyne states that statistics prove that while the infants in such cases are not invariably refractory to subsequent vaccination, the immune percentage is larger than can be accounted for by idiosyncrasy or accidental causes; the proportion has been variously placed, he states, at from 32 to 80 per cent., and he concludes that it will be safe to assume that one fetus in three is protected by the vaccination of the mother in the second half of pregnancy.

It is true, he says, that an infant has never been born carrying a vaccination pustule upon the skin as the result of the vaccination of the mother; but similarly, an infant has never been born with the primary sore of syphilis upon its genital organs. The point of contact of mother and fetus is in the placenta and not on the fetal cutaneous surface, so that, if a vaccination mark occurred in antenatal life, it would have to be looked for in the placenta. As to how the protection is brought about, there are two theories: the one, that there is a direct transmission of an antitoxin, elaborated in the maternal tissues to the fetus; the other, to which Dr. Ballantyne inclines, that the immunizing agent passes to the fetus and acts upon its tissues and fluids, and that these elaborate the antitoxin.

Dr. Ballantyne holds that the evidence proves that the protection afforded to the fetus by the vaccination of the mother during pregnancy does not last long, probably not more than six months, and this view appears to be confirmed by some of the new cases recently published.

The practical conclusion which Dr. Ballantyne draws is that it is necessary to vaccinate all new-born infants, whether their mothers have been vaccinated or revaccinated during pregnancy or not; and further, that, in the presence of an epidemic of smallpox, it will be wise to revaccinate a pregnant woman for the sake of her unborn infant, even if not for her own.

Dr. Ballantyne also deals with another curious point. It appears that there is some evidence that the infant of a woman who has been revaccinated during pregnancy without success, owing presumably to earlier successful vaccination, may yet be born with a certain degree of immunity. SHANNON.

PACENTAL TRANSMISSION. (Johns Hopkins Hospital Reports. Vols. 3, 4 and 5.)

Lynch gives notes of three cases of typhoid fever in pregnancy. In the first case the patient aborted about the twelfth day of the disease, during the fifth month of pregnancy. Bouillon innoculated with liver and blood of the fetus gave cultures of the typhoid bacillus. The Widal reaction of the fetal blood was negative.

The second case gave birth, about the fortieth day of the disease, to a child in the thirty-sixth week of gestation. The child lived seventy-two days. The Widal reaction of its blood was negative, and at the autopsy no micro-organisms were recovered from its tissues.

In the third case the patient aborted, during a relapse of typhoid, at six months. No autopsy was held, but the infant's blood gave a negative reaction to the Widal test.

In the paper a great deal of interesting information culled from literature is given as to placental transmission in other diseases. SHANNON.

SEPTICAEMIA AND THE CURET. (The Canadian Practitioner and Review, January, 1903.)

Dr. H. Plympton condemns strongly the abuse of the sharp curet in puerperal septicæmia.

That the uterus should be thoroughly and aseptically cleaned admits of no argument, but that the work should be done with the curet he denies most emphatically.

He holds that many of the cases of death following the decomposition of fetus or placenta in utero are caused by the use of the curet, and believes that septicæmia may be lessened very much if a more rational procedure be resorted to.

The condition of the uterus containing septic matter is one of great congestion, the thickened walls being coated internally and over the os with a thick brown tenacious mucus. The congestion is active, and therefore the more dangerous in the event of the admission of septic matter into the circulation.

If the curet is used, denuding the walls of their protective covering, an immediate vaccination takes place with a septic virus, septicæmia following in an incredibly short space of time (chemical metamorphosis is marvellously rapid in the circulatory system) and death quickly ensues.

If, without using the curet, we can remove the septic matter from the uterus without disturbing the mucous covering, and enable the uterus of itself to expel the coating, we shall have taken a long step forward in the treatment of this class of uterine cases.

This process, he says, can be induced by a properly combined alkaline solution at a temperature above 100 degrees and a strict avoidance of bichloride, carbolic acid, formaldehyde or any antiseptic of an acid reaction or astringent nature, which would coagulate the fibrin and albumen of the blood.

He advises the gentle removal of whatever fragments are lying in the uterine cavity, by means of forceps, care being taken not to tear from the walls any adherent piece, this being followed by the gentle flushing of the uterine cavity with the alkaline solution (100 per cent), the reservoir containing the fluid being not more than two feet above the level of the hips. The flushing is to be repeated every two hours with one quart or more of the solution, as required. This treatment will reduce temperature, relieve pain, stop vomiting and remove offensive odor in a very short time.

He does noit wish to decry the proper use of the curet, but its employment under such conditions as make it practically a sharp weapon, loaded with septic matter, dangerous beyond the poisoned arrow of the Malay or the fang of the cobra, and utterly opposed to our modern ideas of antisepsis. SHANNON.

PATHOLOGY AND BACTERIOLOGY.

Edited by

A. R. BECKER, M. D.

THE PLEURISIES. (Deseos, Rev. de Med., Sept. and Oct., 1902; Barjon and Cade, Arch. Gen. de Med., Aug., 1902; quoted in Am. Med., Vol. IV, No. 23.)

Recently and largely through the efforts of Widal, much attention has been drawn to a new and rapid method of diagnosis of the serous effusions—whether due to tubercle or streptococcus or pneumococcus or staphylococcus, to malignant disease, or arising from affections of the heart or kidneys. A small amount of the effusion is withdrawn, immediately centrifugated, spread on cover-glasses or slides, fixed in equal parts of ether and absolute alcohol, and strained by the ordinary methods for blood. Besides the bacteria, which may or may not be present in given specimens, the cellular elements of both blood and tissues are found and accurate diagnosis may often be made from them alone. In the early stages of *primary tuberculous pleurisy*, many polynuclear cells may be found, but, later, almost exclusively the small lymphocytes tending to confluence, with a few red corpuscles and endothelial cells. In *secondary tuberculous pleurisy* the observations are less distinctive; but the diagnosis is readily made otherwise. The *inflammatory pleurisies*—coccic, rheumatic, typhoidal—all show large numbers of polynuclear cells. In the *mechanical pleurisies*, from congestions and infarctions, there are found large sheets of endothelial cells. In *cancerous pleurisy* there may be nothing peculiar or the malignant cells may be found. BECKER.

THE QUESTION OF URIC ACID. (The Philadelphia Medical Journal, Vol. X, No. 1.) This question is considered by Croftan.

Presuming that it may be considered definitely determined that a large portion of the uric acid that enters the blood-stream is destroyed in different organs of the body, it is by no means determined that all of it is so. And his conclusions are: "The uric acid (both endogenous and exogenous) circulating in the blood is an intermediary product; it is destined to undergo further destruction in different organs of the body, whereas, the different organs of the body, and consequently the organism as a whole, possess very great uric acid destroying powers, a certain portion of the uric acid escapes destruction, and is therefore eliminated. We may expect to find the excretion of uric acid increased if the quantity of blood circulating through the kidneys is increased. Such fluctuations may, in part, account for fluctuations in the uric acid excretion at different periods in the twenty-four hours. The average excretion for a consecutive number of days will, however, remain fairly constant in health." BECKER.

ADRENALIN CHLORID. (Proceedings, Patholog. Soc., Phil., Oct., 1902.)

Prof. C. A. Herter of New York read a most interesting paper before the Pathological Society of Philadelphia on April 10, 1902, starting from the observation that adrenalin chlorid, when introduced into the peritoneal cavity of dogs, is almost invariably followed by the appearances of considerable quantities of sugar in the urine. He records a large number of careful experiments—really the most exhaustive on this subject ever published—including the direct application of a solution of the adrenalin to the exposed pancreas of a dog, and also such substances as piridin, piperidin, quinidin, and potassium ferrocyanid, cuprous oxid and sulphurous acid—all of them known as reducing agents—with the same results; while none of the oxidizing agents tried had any such effect at all. From which he concludes that the action of the suprarenal glands in producing glycosuria is probably due to their reducing power, by some as yet unknown element, upon the cells of the pancreas. BECKER.

BLOOD FINDINGS IN MEASLES AND SCARLET FEVER. (Zeitsch. of Kl. Med., Bd. XLV, Hfte. 3 and 4. From Phil. Med. Jour., Vol. IX, No. 25.)

Reckzeh reports a careful differential study of the blood findings in measles and scarlet fever, of course confirming the previous observations that there is hypoleukocytosis in the former and hyperleukocytosis in the latter. But, contrary to some other observers, he finds that the rise in the leukocytes in scarlet fever tends to reach its greatest height during the most marked period in the eruption—the increase being mostly of the polymorphonuclear. These conditions—in which the eosinophiles also partake—of absolute contrariety in the two diseases, he considers of great diagnostic value in the not very infrequent cases of doubt. But complications in either disease cause hyperleukocytosis. BECKER.

Jacque, of the Chicago Board of Health, read a paper before the last meeting of the American Medical Association, strongly affirming the value of the class coccus as a diagnostic evidence of scarlet fever, and this has been emphatically reaffirmed in recent monthly reports from that Board of Health. This coccus is readily mistaken for staphylococcus albus, though it is said that careful study shows unmistakable individual characteristics. It is very sensitive to environment and readily modified in morphology, so that it may appear as a diplococcus, streptococcus or streptobacillus, and often merges from one form to another in the same culture. It also varies greatly in pathogenicity—may cause mere angina, or remain harmlessly in the throats of those who are immune. It circulates in the blood for only a brief period, but penetrates the various tissues of the body and may be constantly found in the throat and skin. By the finding of this coccus, he claims to have frequently made the diagnosis even many hours before the appearance of the rash; and, by it, to have caused the disease in swine, though the usual laboratory animals are immune. The finding of the coccus also differentiates scarlet fever from roetheln. BECKER.

TISSUE CHANGES INDUCED BY THE X-RAY.

Ellis contributes a valuable paper on the Pathology of the Tissue Changes Induced by the X-ray to the Proceedings of the Pathological Society of Philadelphia (Dec., 1902), in which he quotes largely from the literature and recounts careful studies of four cases, summarizing:—

"1. Necrosis of cells and trabeculate of varying degree. In case 1, there is also marked degeneration.

"2. Increase in the elastic tissue in the three cases examined both before and after exposure.

"3. Fever areas of lymphocytic infiltration in one case after exposure; about equal numbers in others.

"4. A tendency to occlusions of vessels by deposits on their inner surfaces. This is marked in some instances, not so prominent in others.

"5. Practically entire absence of infiltration of polymorphonuclear leukocytes."

Conclusions are hardly warranted, but suggestions are:—

"1. Beck and others lay great stress on blood-vessel changes as the cause of necrosis. While endarteritis is probably induced by the X-ray, the accompanying tissue necrosis seems out of proportion to the vessel changes, suggesting the possibility of these being *pari passu* results of the same influence instead of cause and effect.

"2. The presence of immense numbers of cocci and bacilli in the tissues of Case III, after twenty exposures to the X-ray, would argue against the possession by that agent of bactericidal power; it should be said that the pathogenicity of these organisms was not proven.

"3. The unsatisfactory clinical results, as well as the slight microscopic changes in Case III, can probably be safely attributed to the presence of the exceedingly numerous keratinized areas or 'pearls.' This emphasizes the importance of curetting or cutting away diseased tissue, whenever feasible, before instituting treatment by the X-ray." Case III was one of squamonous-cell epithelioma on the inner aspect of the left knee. BECKER.

BOOK REVIEWS.

Edited by

KENELON WINSLOW, M. D.

A GUIDE TO THE EXAMINATION OF URINE. (By JAMES TYSON, M. D. Tenth edition $5\frac{1}{2}$x$7\frac{3}{4}$ inches. 297 pp. Published by P. Blakiston's Sons & Co., Philadelphia. Cloth, $1.50 net.)

When a text book has held its own among all rivals for the space of 18 years—and such eighteen years of wonderful progress—with its popularity undimmed, there is no need for words. The original proportions of the book are well maintained. Having reached a healthy, middle life one would naturally expect a certain added "corporosity" appropriate to this period. The present edition has thus gained about 100 pages in thickness since the fourth edition, printed in 1882. This increase in bulk is due to the introduction of many new topics, notably the consideration of and tests for the following bodies found in the urine; peptone, hemialbumose or propeptone, fibrin, inosite, levulose, lactose, etc. We can find no mention however of a new discovery in urinary analysis which sometimes affords valuable evidence of the functioning power of the kidneys—we refer to the determination of the freezing point of urine. While the practical application of this test is limited it may prove of great service in guiding the operator when in doubt as to the advisability of removing a diseased kidney. Prof. Tyson's book, as a guide for the every-day-examination of urine by students and general practitioners, is certainly without a superior. WINSLOW.

POCKET CYCLOPEDIA OF MEDICINE AND SURGERY. (Edited by George M. Gould, A. M., M. D. and Walter L. Pyle, A. M., M. D. 6x3½ inches. Bound in flexible leather with gilt edges. Published by P. Blakiston's Sons & Co., Philadelphia, 1902. Price, $1 net.)

This neat little volume—which closely resembles a prayer book in appearance—is a pocket abridgement of the Standard "Cyclopedia of Practical Medicine and Surgery" edited by the same men, with the collaboration of seventy-four medical authorities. As the larger parent work is a condensation of the "accumulated medical knowledge of the day," so this latest offspring is a condensed condensation. Herein may be found an adequate description of all medical and surgical disorders, not excepting the specialties, including their definitions, etiology, symptoms, diagnosis and treatment, in most cases. The work is arranged alphabetically, beginning with "Abdomen"—its landmarks, surgical anatomy, painful disorders, wounds and injuries and giving minute directions for the technique of an abdominal section—and so down through the alphabet until we reach "Zoster, herpes." Drugs, new and old, find due consideration, and there is a very complete dose table in the apothecaries and metric systems of weights and measures at the end of the book, together with a list of poisons and antidotes. It is marvelous how much knowledge can be contained in so small a compass, so much so, that on first thought one almost questions the use of a medical library. But although one can not live on a dog biscuit or other compressed nutriment alone, the little work under consideration, will be found an excellent "remembrancer" in emergencies and whenever it is desirable to quickly arrive at the meat of a medical matter. It is certain that if every medical man should always carry this little "pocket book" with him he would never have an empty one.

WINSLOW.

MANUAL OF CHILDBED NURSING, WITH NOTES ON INFANT FEEDING. (By Charles Jewett, A. M., M. D., Sc. D. Fifth edition, revised and enlarged. 80 pp. 12 mo. Published by E. B. Treat & Co., New York, 1902. Price 80 cents.)

A more excellent manual on the subject and for the purposes intended, it would be difficult to imagine. The style is staccato and concise; the "condensed paragraphs" admitting of no superfluous words. The matter is eminently scientific and according to the most recent knowledge. With the exception of the following quotation—"In ordinary cases she (the patient) may sit erect in bed after the first one or two days during meals or for bladder or bowel evacuations"—there is not a dictum with which one could disagree, and even this statement is previously qualified by the remark that "during the first week the patient should sit up in bed only with the consent of her physician." The book treats of the patient during pregnancy, labor and the puerperium, and a special section is devoted to "Prevention of Childbed Infection." A chapter considers "Management of Birth in Absence of Physician," which might prove of great value in obstetric emergencies. Detailed rules for the immediate and later care of the child are given, together with full directions for artificial feeding. While the work is intended for trained nurses the precise and unequivocal description of the preparation for labor and the obstetric technique will well repay reading by the medical student, or general practitioner, who will gladly place it in his patient's hands.

WINSLOW.

SYPHILIS: A SYMPOSIUM. (Published by E. B. Treat & Co., New York, 1902. Price $1.00.)

This is a 12 mo. book of 122 pages republished from one of the "Special Numbers" of the International Medical Magazine and written by seventeen different writers, among whom are some of the most noted syphilographers and dermatologists. Regional involements of the body are treated by competent specialists on the ear, nose, throat, stomach and nervous system. The topics considered in the special articles are: "Etiology," "Clinical Characteristics;" "Unrecognized Chancre;" "Syphilitic Affections of the Bronchi, Lung and Pleura;" "Syphilis of the Nose and Throat;" "Syphilis of the Stomach;" "Syphilis of the Nervous System;" "Unrecognized Syphilis in General Practice;" "How Best to Diagnosticate Syphilis in a Wet Nurse;" "Diagnosis and Management;" "The Curability of Syphilis;" "General Remarks on Management;" "Treatment of Syphilis." At the end of the book there are six questions propounded (by whom does not transpire) to Duhring, Lydston, Horwitz, Morton and Keyes, which they respectively answer in short articles under their signatures. In reply to the first question, "What is the safest course in the treatment of Syphilis?" the writers are unanimous in advising against making a positive diagnosis on the strength of the primary lesions, with few exceptions, but favor waiting for secondary symptoms and discountenance specific treatment while any doubt exists. In regard to the fourth question, "In how far should the physician assume responsibility in sanctioning matrimony in syphilitics?" the views expressed are somewhat divergent. Lydston maintains that "The physician should assume no responsibility whatever." Horwitz affirms that "If a syphilitic patient has had three years of active constitutional treatment, and is afterwards kept under observation for one year, during which time no sign of the disease has made its appearance, the syphilitic may marry with safety." Morton states that "The medical man should hesitate in sanctioning marriage in any case of syphilitic infection, and assume no responsibility." While Keyes asserts "that marriage of the male may, in my opinion, always be safely sanctioned five years after the date of chancre, if the patient shall have been submitted to a prolonged and thorough mercurial course during said five years." Taken as a whole, this little work contains an excellent, practical presentation of just those various phases of syphilis which are apt to give the general physician most difficulty. The numerous special articles are clear and pithy, and are written in an easily readable style. They represent in their collective wisdom the final conclusions of authorities deduced from wide experience of this disastrous disorder and will prove most instructive and interesting reading to the practitioner of general medicine.

WINSLOW.

MEDICAL SOCIETIES.

NAME. MEETINGS HELD.

Washington State Medical Association................................Spokane
President, Chas. McCutcheon, M. D.; Secretary A. H. Coe, M. D.

Chehalis County Society............................Second Tuesday—Aberdeen
President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

King County Society...........................First and Third Monday—Seattle
President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

Pierce County Society.......................Second and Fourth Tuesday—Tacoma
President, E. M. Brown, M. D.; Secretary, P. B. Swearingen, M. D.

Skagit County Society ....
President, F. B. West. M. D.; Secretary, C. C. Horbaugh, M. D.

Snohomish County Society............................First Thursday—Everett
President, J. R. Hathaway, M. D.; Secretary, C. A. Mead, M. D.

Spokane County Society.............................First Thursday—Spokane
President, C. S. Kalb, M. D.; Secretary. Geo. A. Gray, M. D.

Walla Walla County Society...................Second Wednesday—Walla Walla
President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.

Whatcom County Society...............................First Monday—Whatcom
President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

Whitman County Society ....
President, Wilson Johnston, M. D.; Secretary, H. B. Clough, M. D.

Yakima County Society..........................First Tuesday—North Yakima
President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.

Oregon State Medical Association..........................September—Portland
President, H. W. Coe, M. D.; Secretary, A. D. Mackenzie, M. D.

City and County Medical Society of Portland..........First Wednesday—Portland
President, C. H. Wheeler, M. D.; Secretary A. D. Mackenzie, M. D.

Montana State Medical Association..
President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.

Silver Bow Medical Society...............Second and Fourth Wednesdays—Butte
President, Donald Campbell, M. D.: Secretary. J. A Donovan. M. D.

Idaho State Medical Association.......................October 8 and 9—Boise
President, George Collister, M. D.: Secretary. E. E. Maxey. M. D.

Northern Idaho District Society..
President, C. L. Gritman, M. D.: Secretary, C. D. Parsons. M. D.

Southern Idaho District Society...................................April 9—Boise
President, B. L. Steeves, M. D.; Secretary. H. A. Castle. M. D.

Corrections and additions to this list are requested from societies reached by this journal.

PROSPECTUS.

PLEASE READ

Although the first issue was a very large one, the demand for extra copies of Northwest Medicine has been so great that our supply has been entirely exhausted. In order to secure a few additional copies for the use of this office we will pay ten cents each for a few copies returned to us in good order.

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NORTHWEST MEDICINE.

March, 1903.

ORIGINAL CONTRIBUTIONS.

THE CAUSES AND TREATMENT OF HYDRONEPHROSIS.*

By J. Wesley Bovee, M. D.

WASHINGTON, D. C.

President Southern Surgical and Gynecological Association, Fellow American Gynecological Society, Member American Urological Society, etc.

Hydronephrosis is a term used to denote overdistension of a kidney by retention of urine from any cause. It is to be distinguished from renal cysts by the latter never having any connection with the pelvis of the kidney, and being located in some part of the kidney not necessarily near the outlet. On the contrary hydronephrosis practically involves the renal pelvis and usually the ureter to a more or less extent. It may involve one or both kidneys. Martineau, in 1785, called it "Hydrops renis," and Johnson, in 1816, "Hydrorenal distension"; Rayer, in 1841, used the term "Hydronephrosis," which ever since has been the accepted term.

Sometimes the degree of distension is extreme, a large abdominal tumor being present, and in many cases the pressure has been so great that the parenchymatous portion of the kidney is entirely atrophied. The pelvis of the kidney partakes of this extreme distension and becomes a very thin walled portion of the cyst. Usually a quite considerable portion of the ureter below the renal pelvis is involved in the sac wall. Strictly speaking the pelvis of the kidney is a portion of the ureter. From whatever cause the obstruction to the flow of urine can never be both complete and permanent. Various experimenters, from Guyon down, have absolutely proven that permanent, complete obstruction invariably ends in renal pressure atrophy. This result is verified in surgery of the human body by the large number of cases reported of ligation of the ureter, accidentally and otherwise, that were followed a few days later by a small tumor in the region of the kidney, accompanied by some pain and tenderness and which gradually disappeared. It has also been determined that the kidney may resume its functions unimpaired after such obstruction has existed six weeks. Therefore, the obstruction, if permanent and complete, destroys the kidney function and structure. It may, however, be permanent if incomplete. It is not uncommon to see cases that have existed for years with but little impairment of the renal function of the affected organ. The condition is not an uncommon one. Even in cases found at autopsy the number is fairly large. Henry Morris found in the records of 2,610 autopsies, during the years 1873 to 1883, in the Middlesex Hospital, 142 cases of marked hydronephrosis, showing as an abdominal tumor, and a number in which the condition was slight.

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*Read before the Medical and Surgical Society of the District of Columbia, January 8, 1903.

CAUSES.

The causes of hydronephrosis may be considered under two principal heads, viz., *congenital,* which according to Henry Morris, embraces one third of all cases, and *acquired.* Another variety of great importance is the intermittent type. These classes may be conveniently considered according to the structures involved in the obstruction itself. In some cases no cause can be found. The congenital variety embraces all those forms in which the conditions leading to the backing up of the urine were congenital and it must not be understood that the hydronephrosis was necessarily present at the birth, as in many cases it has not appeared until adult life. In this paper only those cases that develop after birth are considered. The congenital variety includes conditions of the prepuce, urethra, bladder, ureter, renal pelvis, kidney, renal artery, and even from congenital abnormalities of structures adjacent to these. In Morris' work on Surgical Diseases of the Kidney and Ureter, 1901, Vol. 1, page 402, appears an illustration of a specimen in St. Bartholomews Hospital Museum. It is one of double hydronephrosis and dilatation and torsion of the ureters in a child with a very small preputial aperture. Congenital abnormalities of the urethra may cause such obstruction to the flow of urine that it distends the bladder and later the ureters and kidneys. Abnormal ureteral mouths may often produce a reflux of urine. If the uretero-vesical junction be so imperfect as to have an unusually large opening such reflux may easily occur, but worse than that is one that is too much constricted. Marked thickening of this portion of the duct has been noted in some cases as the cause of constriction. Cases have been mentioned in which the ureter instead of ending in the bladder, passed to the vagina, the urethra, the wall of the urethra, nearly to the external meatus urinarius and even into the vulva. In such cases the opening may be subjected to unusual pressure at any time which will prevent a free exit for the contents of the duct, such cases having been recorded. As the ureter courses through the loose areolar tissue any of its various curves may be changed into an angle so marked that obstruction to the flow of urine is imminent and reduplications and folds in the mucosa is noted as the cause of some cases of hydronephrosis. If the ureter leave the pelvis of the kidney at a very acute angle frequently an obstruction at that point results with accumulation of urine above it. According to Morris, Walter discovered the case of a man, aged thirty years, who had two ureters and two pelves to each kidney. The upper part of the right kidney was converted into a cyst. The right upper ureter was dilated and opened into the bladder close to the prostate and passed down in front of the right lower ureter which opened almost into the median line of the bladder. The lower ureter and lower half of the right kidney were not distended. Morris also mentions a case of double ureter, the lower end of which opened into the bladder near the vesical orifice. It was sacculated and the lower part of the kidney was distended with pus. The upper part of the kidney, which was drained by the ureter opening normally into the bladder, contained a calculus fixed near its upper end. The corresponding part of the kidney was markedly distended by urine. In double ureter the upper one is nearly always the one having the abnormal termination. Congenital diverticula of the kidney itself has been noted as a cause of urinary stasis in the kidney and in a few cases a branch of the renal artery has been found crossing the upper portion of the ureter and compressing it to the extent of producing obstruction. Occasionally the obstruction is double and from two different causes. Roberts reports such a case in which double hydronephrosis was due to a contracted and too oblique ureter on the left side and on the right to compression from a branch of the renal artery crossing the ureter. Cases have been reported where distension of one side of the double uterus has pressed upon a ureter and caused hydronephrosis.

Of the acquired variety I cannot expect in a paper of this character to fully discuss its extremely numerous causes, but I will invite attention to the most important ones. Many different conditions located at various points along the urinary tract below the kidney may cause hydronephrosis of this species. Enlargement and other forms of prostatic trouble have been noted as producing hydronephrosis. The late Dr. D. W. Prentiss, of this city, in 1882, reported a case of dilated bladder, ureters and kidneys from this cause. Buhl and others report nearly similar ones. Flamain and numerous other observers report cases in which such distension has resulted from torsion of the penis. In short any condition of the urethra causing obstruction to urinary flow is likely to produce double hydronephrosis. R. T. Edes, formerly of this city, has a splendid monograph on hydronephrosis resulting from functional disturbance of micturition. Morris refers to this cause and quotes Alexander's case of frequent micturition due to phimosis which resulted in hydronephrosis.

In the bladder many conditions may cause sufficient obstruction to cause kidney dilatation either by backing up of urine in the bladder or by pressure on one or both ureters—the result being double in the former and unilateral or bilateral in the latter. Cancers and other tumors of the bladder wall act similarly. Morris refers to Ebstein's case of abscess in the fundus of the bladder following lithotomy that occluded both ureters, causing double hydronephrosis. Chalot reports a case of double hydronephrosis from four calculi in the bladder.

Various conditions of the ureter are found that produce temporary or partial occlusion of it. Strictures of various diameters and numbers, cysts of the mucosa, tumors of various kinds and valve like constriction in some portion may produce backing up of urine and hydronephrosis. This has been the cause in a few cases under my observation. Kinking of the ureter is occasionally observed. Traumatism of this duct from violence may so injure it as to cause stoppage of urine at the time, and a later stoppage may be induced by ureteritis incident to traumatism. Hemorrhages into the ureter may so occlude it as to produce the condition under consideration. As a rule the position of the ureter is such that it is well protected from traumatic injury.

A very common cause of hydronephrosis is ureteral calculi and in many cases this condition is recorded. Tuberculosis, syphilis and cancer may so involve the wall of the ureter as to markedly distend its caliber. It should be remembered that in this and congenital forms both ureters may have independent pathological conditions causing double accumulation of urine in the kidneys and renal pelves.

Various conditions of the kidney may lead to this distension by urine. Drew reports a case of villous cancer of the kidney pelvis, the ureter and bladder that produced enormous distension of the kidney. Probably the most frequent renal condition that produces hydronephrosis is displaced kidney, and unless it is fixed, a very rare condition, the distension is intermittent in character. The kidney drops down causing marked angulation of the ureter and obstruction at that point results.

Besides these conditions of the urinary tract causing hydronephrosis many outside influences are found at work. Allison reports a case in which the cause was pressure on the ureter by an enlarged and prolapsed leukemic spleen. Billroth, Dumreicher and others report cases in which the cause was compression of the ureter by ovarian cysts. Others mention pressure from uterine tumors, inflammation of connective tissue, enlarged lymphatic glands, gummata, tubercular involvements and inflammatory deposits occurring at various points along the course of the ureter, as producing obstruction.

As to the autopsy study of hydronephrosis the following tables are significant, but probably but a small percentage of the cases of hydronephrosis come to autopsy. In the 142 cases Morris selects from the Middlesex Hospital autopsy reports cancer of the pelvic organs—uterus, vagina, rectum or bladder—was present in 116 cases. Of these 93 were double, 16 on the right and 7 on the left side only. There was cancer of one ovary in one case and of both in another. Of the other 24 cases, 4 were from unknown causes, 3 from cystitis, 3 from vesical calculi, 1 from villous growth of the bladder, 3 from enlarged prostate, 4 from ovarian cysts, 3 from ureteral constriction and 3 from pressure on the ureter from cancer of abdominal organs. Of the 24 remaining cases, 12 were double, 9 were of the right and 3 of the left ureter. The double cases were due to cystitis in 3, enlarged prostate in 3, vesical calculi in 3, and ovarian cysts in 3. Of the 12 unilateral cases the cause was unknown in 4, constriction of one ureter was found in 3, S-shaped twist in ureter of 1, cancerous tumor of the abdomen in 3, and ovarian cyst in 1. From the further analysis of 3,926 cases from the autopsy reports of the same hospital between 1884 and 1897, there were 239 cases, most of them being due to pressure on the ureters by malignant diseases in the pelvis. Of these, 170 were bilateral and 69 unilateral. Five other cases of unilateral hydronephrosis were found to be due to renal or ureteral calculus. As a rule, however, unilateral hydronephrosis is much more common than the double sided variety.

These statements show how frequently cancer of the female pelvic organs produces hydronephrosis. I am sure all of us have seen examples of this relation between the conditions mentioned. I have in mind at this moment a case of villous cancer of the bladder compressing a ureter and hydronephrosis resulting, with a later renal infection and death. It is easily understood how any of these conditions may obstruct the current of urine to the bladder and produce renal distension.

The intermittent form of hydronephrosis is very interesting indeed, not alone as to its cause and treatment, but as well in its symptomatology which will have to be omitted from this paper. Movable kidney is the most frequent cause and its *modus operandi* has already been mentioned. Kinks, volvuli, torsion of the ureter, restless urinary calculi in the pelvis of the kidney, the ureter, bladder or even the urethra and pedunculated tumors of the renal pelvis or ureter, may intermittently act as ball valves producing intermittent hydronephrosis. Pressure from neighboring organs such as the spleen, ovary, uterus, colon, sigmoid or rectum with or without tumors, may act similarly and according to the organ involved will be the variation in the symptom complex and intermittency.

TREATMENT.

As the causes of hydronephrosis have been shown to be very many and widely differing in character it is evident the treatment of it covers a wide range of surgery. No one would suggest any other kind of treatment. I find it impracticable to enter deeply into the subject, but the treatment of some of the conditions require special mention. Conditions of the penis and urethra acting as a cause, such as phimosis, strictures and enlarged prostate, will require appropriate treatment.

In the bladder the conditions are of some importance. Benign tumors and many of the malignant ones may be removed. These conditions are of greater importance than is the resulting hydronephrosis. When the tumor involves a ureteral orifice it may be necessary to remove the lower end of the duct and reimplant it, although such procedure is to be avoided if possible as the anastomosis thus formed is incomparable to the natural one. By very careful work this procedure may often be avoided. In malignant growths, which are prone to spring from the trigonum, the same plan may be tried very early in the disease. Unfortunately they are frequently undiagnosed until a more radical procedure if anything is indicated. When the disease is apparently yet confined to the bladder but involving it in nearly its entirety nothing but cystectomy is indicated. This operation is not a severe one, but disposal of the free ends of the ureters requires great judgment. This operation has been done three times by Reynolds of Boston, Smith of Montreal and Mayo Robson of England since the reading of my paper in 1901 (Trans. Am. Gyn. Soc. 1901, XXVI. 199), in which a table of 100 cases was given. It is not practicable in this paper to enter into the details of cystectomy, information concerning which may be secured from various monographs on the subject. Cystitis, vesical calculi and various other conditions of the bladder must receive their appropriate treatment.

The various conditions of the ureter mentioned are extremely interesting. The surgery of this duct is receiving keen interest from the surgical world. A constriction of the intravesical portion of it may be dilated by ureteral bougies, and if more is needed, amputation with regrafting at another point may be done. If it be in an aberrant ureter, then vesical anastomosis will be indicated. In the rare condition of prolapse of the ureters into the bladder we have an opportunity for a highly differentiated ureteroplasty. Ureteritis will require irrigation and strictures dilatation—unless the number be large and the character very resisting. Sometimes Fenger's operation will be needed. It consists of making a longitudinal incision through the stricture and converting it into a transverse one by the method of suturing. Resection may be needed in very stubborn cases, although I am not aware of this operation having ever been done in this indication. Torsions must be remedied by forming new adhesions to the involved portion, or possibly resection or some other plastic operation. Valve-like constrictions will often need plastic operation. Kuster's case furnishes an excellent model and consisted of making a resection which corrected the angulation. Gossett's plan of lateral anastomosis may be very desirable in certain cases. Ureteral calculus is treated by longitudinal incision and removal of the stone. Sutures may or may not be employed, as such wounds in the ureter heal kindly. Kelly removed a calculus from a vesical portion by dilating the orifice and extraction. Not all calculi are solid, some being tubular in form and producing complete stoppage at various angles in the ureter, or by the formation of blood clots within the lumen. Tumors of this duct especially call for extirpation. When the junction of the ureter with the renal pelvis is so situated that the tendency is to closure, then such an operation as Kuster's is indicated, though Fenger's may be better. French surgeons prefer Kuster's operation. In cases of double ureter it may be found that the involved duct may be exsected or grafted into the other. Syphilitic deposits, as well as tubercular changes, require careful attention, but not necessarily surgical treatment addressed to this duct.

Conditions of the kidney calling for relief are malignant and benign tumors, movable kidney, diverticula, calculi, aberrant branches of the renal artery, hemorrhages from injuries, etc. Malignant tumors of this organ are rapid in development and, as a rule, discovered too late for eradication. If a portion were so involved as to produce urinary distension by pressure upon the outlet, the cystic tumor would probably be detected so late in the disease that eradication would be impossible, though even distress incident to urinary distension might necessitate such an attempt. In early stages of such condition of course the treatment would be nephrectomy, other things permitting. In benign tumors of this organ the enucleation may be done, though even these usually involve the kidney to such an extent that nephrectomy becomes imperative. Movable kidney is one of the most frequent causes of simple hydronephrosis and the success of nephrorrhaphy in the treatment is highly gratifying. How it succeeds so well is easily understood when we consider the angulation and occlusion of the ureter in movable kidney and how in remedying the renal displacement the ureter is straightened and the angulation removed. The treatment of renal diverticula is by no means easy. Often the most satisfactory method will be a kidney resection, removing the diverticulum. This often means a portion of the urinary excreting tissue—a matter always demanding serious consideration. It may be possible in some cases to so drain the renal diverticulum that danger of distension is removed. Of course if the parenchymatous tissue of such diverticulum is destroyed from long-continued pressure, then its removal is advisable, because if left it may act as an auxiliary renal pelvis, and from its position fail to drain freely. That renal calculi should be removed goes without saying. Here is great opportunity for care in surgical technique to prevent infection of the kidney in its crippled condition. The treatment of aberrant branches of the renal artery requires great judgment, as the pressure upon the ureter by such vessels may be increased by such treatment. In proper cases such vessels may be ligated and severed, but even this may result in permanent interruption of the blood circulation in the parts supplied by the vessels so treated. The circulation of the kidney is unlike that of other organs as a rule. At least some portions of it are supplied by individual vessels. There is practically no anastomosis between the two lateral halves of it. It may be possible to so revolve the organ upon its longitudinal axis that the ureter may be freed from such pressure. If so, then an attempt to so fasten the revolved organ should be made. It is conceivable that in special cases severing of the ureter with reunion of the cut ends may be required to free it from entanglement with compressing blood vessels. Hemorrhages from injuries of the kidney and renal pelvis may produce obstructing coagula that give rise to accumulation of urine in the kidney. In such cases the ureteral bougie may be sufficient to dislodge it with the result of causing its expulsion into the bladder or even through the urethra. Cases have arisen, however, in which it failed, and exploration by the loin was required.

Of the various conditions outside the urinary tract the treatment should be appropriate to each. The prolapsed or leukemic spleen, the ovarian, uterine and other tumors, should be removed. Late cancer of the pelvic organs of course has never been successfully combated. Enlarged glands or bands of tissue compressing the duct should be removed, and anti-syphilitic treatment applied to syphilitic deposits along the urinary tract.

In some cases no condition will be found that will seem to be a logical cause, and then simple lumbar incision and drainage of the duct will be best. This procedure will be advisable in a large proportion of cases from nearly any cause. Even in hopeless stages of pelvic malignant disease this procedure may prolong life and ameliorate suffering. Nephrectomy in hydronephrosis should never be done except when positive evidence of permanent loss of function of the kidney is at hand.

1404 H Street.

A REPORT OF TYPHOID FEVER CASES.*

By Charles B. Ford, M. D.,

SEATTLE, WASH.

The following cases of enteric fever are reported, not because there is anything very peculiar in the histories, but because the source of infection has been so clearly traced and the diagnosis in each doubtful case verified by the clumping reaction. Only one of them came under my personal observation; for the privilege of reporting the others I am indebted to Drs. Heussy, Holmes and McCulloch.

Margaret L. was taken sick early in August with some fever which proved to be enteric. Her father owns and conducts a private dairy and supplies quite a number of people living in the vicinity with milk. The sanitary surroundings are very poor, the ground is low and damp and there are no sewerage connections. The members of the family milk the cows and have entire charge of the care and distribution of the milk. This case was a rather severe one, was complicated by pneumonia, and the clumping reaction was most positive.

During the latter part of August Dr. Holmes saw a six-months-old child that was sick with some form of fever. As the case developed it proved to be enteric and a clumping reaction made the diagnosis certain.

These people obtained milk from the above mentioned dairy and there can be little doubt about the source of infection.

Early in October Mrs. B., age 33, was taken sick with headache, malaise and the usual symptoms of enteric fever. She ran a regular three-weeks' course of a rather mild type. She obtained milk from the same dairy and no doubt was infected in that way.

During November Mrs. L. was taken sick with enteric fever. She lived in the same house with the first mentioned case and was certainly infected in some manner from it.

On December 7, Dr. Holmes saw in consultation a child, 7 years old, sick with enteric fever. This family obtained milk from the same private dairy and the infection presumably came from this source.

I know of two other cases that were traced to dairy milk; one a child four months old, had always been bottle fed an Pasteurized milk, obtained from Louch-Augustine Co. For some reason ordinary dairy milk was used for a period of three days, after which the Pasteurized milk was again used. The child was immediately taken sick with what seemed to be an ordinary intestinal disturbance from improper feeding. The temperature continued, rose spots developed and a clumping reaction made the diagnosis of enteric fever certain. Since that time the child has had several intestinal hemorrhages.

Another case, that has since died, contracted enteric fever from the milk supplied by this same dairy.

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*Read before the King County Medical Society, February 2, 1903.

No doubt there are other cases of enteric fever that have developed from this same source, for the milk sent out by these dairies was certainly infected and some of the susceptible people must have succumbed.

Since every case of enteric fever comes from an infection by a specific micro-organism, and that micro-organism originally has been eliminated from the body of some person suffering from the same disease, it is well to instruct our patients and their attendants on the elimination of the bacillus from the body. The exhaled air of an enteric fever subject is germ-free, but the sputum may and very often does contain the Eberth bacillus and this is especially true when we have a pneumonia complicating it. There is no positive evidence that the perspiration of an enteric patient contains the bacillus. The urine is very apt to contain it and persons recovering from enteric fever may continue for weeks to eliminate in the urine this specific micro-organism.

"The most important avenue for the elimination of the Eberth bacillus from the body is the bowel."

"The elimination in the stools probably begins soon after its introduction through the mouth."

"The Eberth bacillus may grow in the intestines of an individual and pass from the same without causing enteric fever, and so the individual becomes the bearer and distributor of the infective agent, without developing the disease himself."

This explains the origin of certain epidemics that appear to have started *de novo.*

Pus from a post-typhoid abscess contains the Eberth bacillus and may constitute a source of infection. The life history of the bacillus after leaving the body varies with the conditions surrounding it. Dessication and sunlight rapidly destroy it. In the proper kind of soil, under the proper conditions, this micro-organism multiplies rapidly and retains its vitality for a long time. In ordinary drinking water the bacillus may live for months and there can be little doubt that our great epidemics are caused by using infected water. Nurses and attendants may carry the infection on their hands or in their clothing.

"Experimental evidence shows that pure cultures of the Eberth bacillus will retain their virulence, when poured upon cotton, linen, or woolen cloth, for from two to three months."

The board appointed by Surgeon General Sternberg came to the conclusion that flies were the most active agents in the spread of enteric fever among the soldiers.

So we see that great care should be exercised in disinfecting all excreta from a person sick with enteric fever, as well as everything that comes in contact with the patient.

I believe that if nurses would wear rubber gloves when attending to the stools and urine of an enteric fever patient that the chances of infecting themselves would be greatly diminished.

Our dairies should receive more attention from the health authorities and especially the so called private dairies where the children of the owner constitute the chief source of help.

I believe that enteric fever would show a decided decrease if our milk supply were rigidly guarded from infection.

THE BEHAVIOR OF THE IRIS IN GENERAL DISEASES.*

By Hamilton Stillson, A. M., M. D., Ph. D.

SEATTLE, WASH.

In the writer's experience the majority of diseases to which the iris is subject are symptomatic of systemic affections. Since the iris is so easily examined the general practitioner may profitably avail himself of this fact in the diagnosis of a class of diseases; and, in certain cerebral conditions, the behavior of the iris will localize very exactly the part of the brain involved.

For viewing the iris accurately it is necessary to have, first, a good light under good control both as to direction and duration, and second, a good magnifying glass or "loupe."

For a light the writer prefers a policeman's electric flash light. It may be placed as near the eye as necessary, may be flashed into the eye from any direction, and may be lighted for as great or as little duration as needed.

***Compound Microscope for Viewing the Eye.**

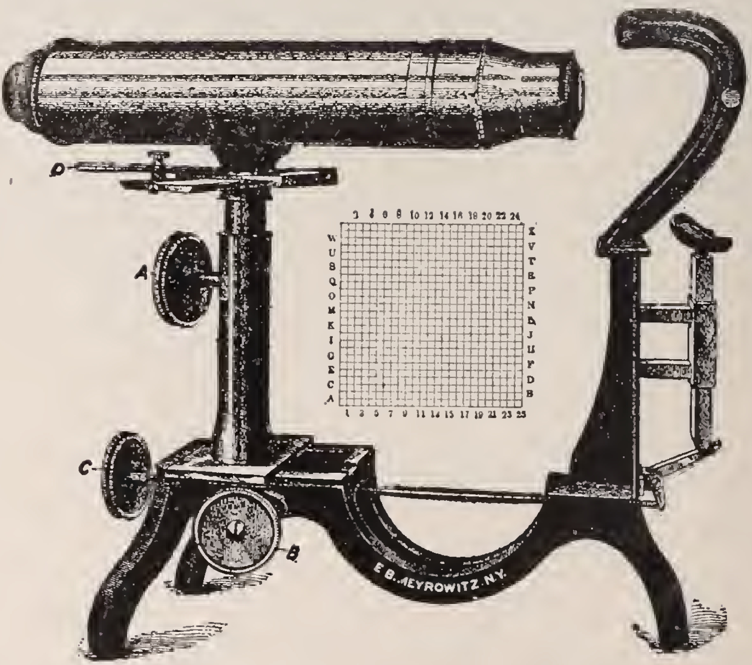

Fig. 1.

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*Read before the King County Medical Society, Seattle, Wash., February 2, 1903.

As to the magnifying glass many oculists prefer a microscope mounted horizontally on a stand (Fig. 1). The writer, however, prefers a binocular magnifier. Of these there is a great variety on the market. A very simple and effective form is mounted like a pair of spectacles (Fig. 2), each lens of which is composed of a six inch spherical lens combined with a prism of 12 degrees, base in. Correction of the refractive errors of the physician using this form should be combined in the spectacles. A more convenient form consists in the mounting of two watchmaker's glasses on a hinged headband, each glass consisting of a strong spherical lens combined with a prism (Fig. 3). The advantages of this form are that the glasses may be held sufficiently far in front of the examiner's eyes to enable him to look around them, or over them when he so desires, and that the strength of the lenses may be varied somewhat by varying the distance of the lenses from the physician's eyes.

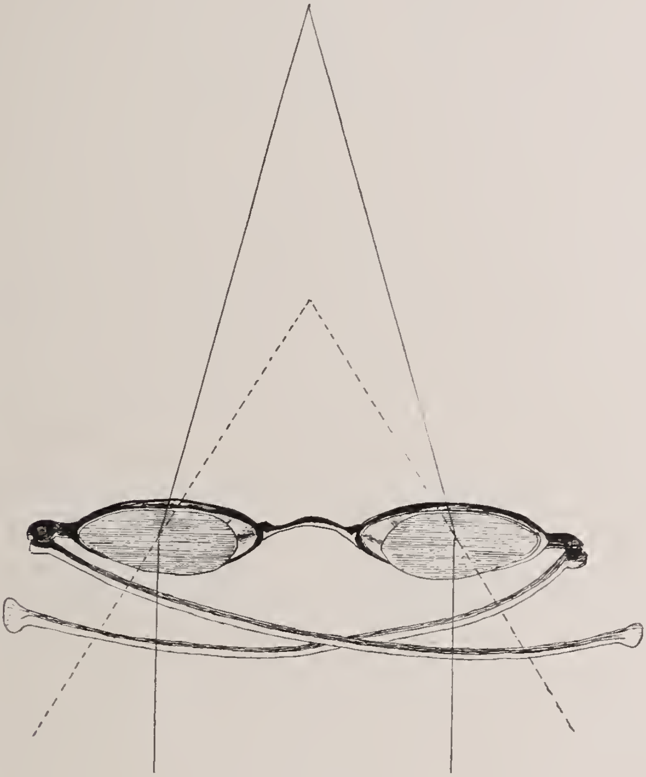

Fig. 2.

The method of examining the iris is as follows: For hyperaemic and inflammatory conditions, as well as for tumors, synechiae, etc., a room well lighted with sunlight is preferable. With the patient seated facing a window, focus the loupe upon the iris, notice the color, markings, etc., comparing one iris with its fellow.

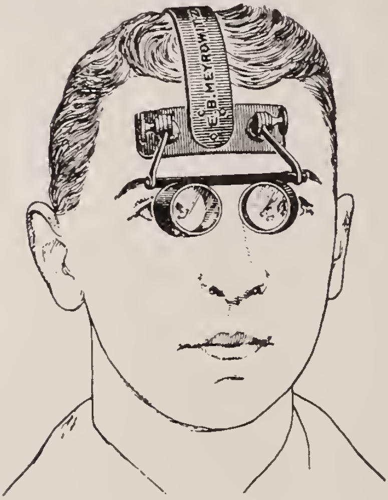

Fig. 3.

Considerable skill is required to diagnose the nature of different tumors of the iris, such as sarcoma, tubercular infiltration, syphilitic gummata, etc., and perhaps these tumors may be left to the oculist; but hyperaemias and inflammations such as arise from rheumatism, syphilis, and the like can easily be diagnosed by the general practitioner. With ordinary hyperaemias there will nearly always be inflammation of the conjunctive. In inflammations of the iris it will look swollen, the pupil of the affected eye will be smaller than that of its fellow, will expand less readily to the action of darkness, will usually be irregular in dilation and there will be injection of the blood vessels around the edge of the iris,—so called circumcorneal injection. This picture is that usually found in iritis from rheumatism.

Iritis from syphilis usually presents in addition to that picture a more or less diffuse cloudiness of the cornea. The glaucomatous iris may have circumcorneal injection but this injection will be deeper and the color of the vessels will be bluer; moreover, the pupil will be dilated instead of contracted, and the dilated pupil will not contract upon the sudden admission of light. Other ocular symptoms will have to be considered in examining for glaucoma such as increased tension of the eyeball, cupping of the optic disc, etc.

Atrophies of the iris present the picture of a thin iris with a sluggish pupil, the edges of the pupil frazzled, the pupil often irregular in shape and iris often tremulous.

Congenital anomalies and traumatic appearances need not be here considered. We will, therefore, hasten to consider anomalies in the movements of the muscles of the iris due to diseases of the nervous system. This portion of the subject is of much more practical importance to the general practitioner and may be considered more at length.

In the examination of anomalous movements of the iris the patient should be seated in a darkened room and the flash light used. Normally the pupil should contract on the entrance of light and dilate upon its removal. If the light be flashed upon one eye the pupil of the fellow eye should contract at the same time and with equal degree. So should both pupils dilate equally upon the withdrawal of light. The pupils should contract equally upon efforts at focusing and upon efforts at convergence. The pupil should dilate upon irritating the skin in the neighborhood of the eye and this dilation should be found principally in the eye of the irritated side.

Now, any deviation from this rule of light reflex will constitute an anomaly of iris movement. In order to understand this relationship between these movements of the iris and the central nervous system it is necessary to have recourse to the following schematic diagram: (Fig. 4).

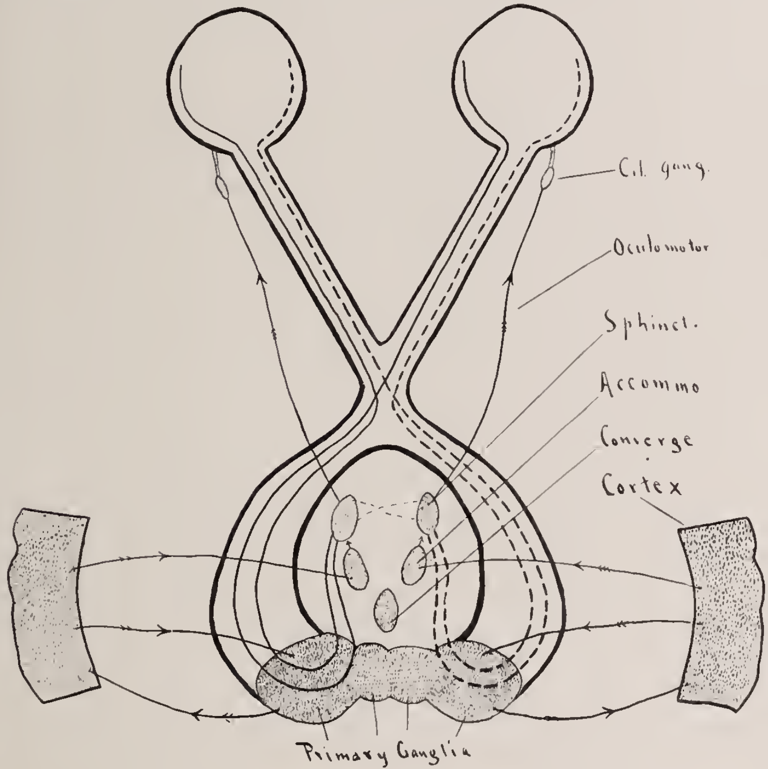

Fig. 4.

To simplify the subject we will classify these disorders into "A," centripetal or sensory visual disorders; "B," centrifugal or motor disorders, and "C," central disorders.

A. CENTRIPETAL DISORDERS arise from disturbances of the nervous structure somewhere between the eyeball and the primary optic ganglia. Necessarily these disorders are visual disorders. The impulses of light flashed into the eye cannot be conveyed over the broken path from the eyeball to the ganglionic cells at the central end of the optic nerve fibers. These visual disorders must necessarily be bilateral, since, as you observe from the diagram, some of the optic nerve fibers from each eye pass to both halves of the brain.

We will suppose that one of the optic nerves is cut in two. Light flashed into the affected eye will cause no reaction in either iris. Light flashed into the unaffected eye will cause consensual pupillary reaction in both eyes. The reason for this is plain. There can be no centripetal reaction if the centripetal path is destroyed; but since, in the unaffected eye the centripetal path is not destroyed the impulse of light can be conveyed centripetally up to the primary optic ganglia of the unaffected side, and from there to the nucleus of the sphincter of the same side. Here the impulse radiates; one line passes back along the motor nerve to the eye of the unaffected side, another line crosses over to the sphincter nucleus of the affected side and thence to the affected eye. Hence both pupils will respond.

If one tractus is destroyed there will be half blindness in each eye for the reason that each tractus is made up of fibers of the corresponding halves of each eye. So that if the light be flashed in the blind half of each eye there will be no pupillary reflex in either eye. If, however, the light be flashed upon the seeing half of either eye there will be reflex contraction of both.

These remarks apply also to the destruction of the primary optic ganglia of one side. That is to say, if the external geniculate body and the anterior corpus quadrageminum of one side only be destroyed there will be hemiopic pupillary reaction of both eyes.

If, instead of the optic nerve, tractus, or primary optic ganglia, the destruction lies in the path from the primary optic ganglia to the surface of the brain, there will be no motor disturbance of the iris, though there will be no conscious perception of light. The impulse of light will pass through the primary arc and be reflected back through the oculo-motor nerve without having gone on up through Gratiolet's fibers to the optic center of the occipital lobe.

If visual hallucinations be present these fibers alone are involved; if no hallucinations be present the cortex is involved.

In this way a tumor may be very exactly located. That is to say, we may tell definitely whether a cerebral tumor causing destruction of the path be at the base of the brain or nearer the surface. Noyes has, however, very acutely observed that "the existence of the hemiopic pupillary inaction has more value as indicating a lesion higher up in the cerebrum." This, however, can readily be observed by reference to the diagram. We should observe, that in all these anomalies of the pupillary reflexes due to cerebral disturbances there may still be retained, and usually is retained, the reaction of the pupils to accommodation, convergence, and cutaneous irritants.

B. The Centrifugal Pupillary Anomalies.—These are really disorders of the oculo-motor nerve either at its origin in the nuclear region, or along its course at the base of the brain, or at its terminus in the orbit. The pupil is dilated since the sphincter pupillae are paralyzed. Perception of light may be perfect in the eye, but flashing of light into it causes no reaction of the affected eye, though light in the unaffected eye will cause the usual light reflex. Usually accommodation and convergence are also affected to a greater or less degree. If, however, the cilary muscle is still capable of contracting, efforts at accommodation will usually force sufficient blood from the cilary muscles into the iris to cause the pupil to contract slightly. In paralysis of the motor oculi the pupil may be made to dilate upon irritation of the integument because dilation upon cutaneous irritation is accomplished through the sympathetic.

C. Central Pupillary Disorders.—These disorders are due to a disturbance of the path between the primary optic ganglia and the nucleus of the sphincter. The pupils are usually of the same size, but that of the affected side is rigid. Necessarily there will be hemianopsia (half-blindness) when the disturbance of the path is unilateral. In such a case illumination of the opposite halves of the field of vision of both eyes will cause no reaction of either pupil, but on illuminating the corresponding halves of the field of vision the pupillary reflex will take place in both eyes. This we call hemiopic rigidity of the pupils. Now, since the vision is usually good, and since there is usually no involvement of accommodation or convergence, and since there is no disturbance of any of the voluntary movements, these central pupillary disorders will be undiscovered unless they are carefully sought for. Of course, if the path of conduction is interfered with on both sides between the primary optic ganglia and the nucleus of the sphincter, as often occurs in tabes dorsalis, this reflex rigidity of the pupils (sometimes called Argyll-Robertson pupil) can be easily discovered and will locate the disease definitely in the vicinity of the motor oculi nucleus. In tabes it means the extension of the gray degeneration of the posterior column of the cord up to the region of the motor oculi nucleus—a serious central involvement.

It is a little curious that in these conditions the pupil should be rather smaller than normal; naturally we would expect them to be larger than normal. This peculiarity has never been satisfactorily explained, though secondary contraction of the sphincter pupillae offers the best explanation. It often occurs, however, that the pupils are not of the same size. Of course, by stimulating the sympathetic by the instillation of cocaine these Argyll-Robertson pupils may be made to enlarge.

Time will not permit us, however, to go into the anomalies of the pupil due to the disturbances of the sympathetic, to degeneration of the cilio-spinal center in the cord, to hysterical or toxic influences, etc., though the subject is an extremely fascinating one.

POST-OPERATIVE HEMATEMESIS.*

By Kenelm Winslow, M. D.

SEATTLE, WASH.

Fellow of Massachusetts Medical Society; formerly Assistant Professor Comparative Therapeutics, Harvard University, Etc.

Post-operative hematemesis, or capillary hemorrhage from the stomach, following surgical operations and occurring without any visible lesion and without any apparent cause, is very rare. No description of the disorder is to be found in the text books, but it has recently received able consideration by Mayo Robson in his Hunterian lectures, and by William L. Rodman in the oration in surgery delivered by him before the American Medical Association at the Atlantic City meeting in June, 1900.

Of fifty leading surgeons interrogated by Rodman, nine have observed cases of post-operative hematemesis. Finney, of Johns Hopkins, is not aware that a case has ever presented itself in the hospital of that institution. On the other hand, Robson has reported seven cases as occurring in his own practice, two of which were fatal, and he quotes six cases observed by Eiselberg in the Konigsberg clinic, and three fatal cases related by Reichard in the Free Society of Surgeons, in Berlin, December, 1899. Johnston, of Richmond, has recorded five cases, three fatal, but accompanied by general peritonitis.

Post-operative hematemesis has occurred after abdominal operations done upon the peritoneum, omentum, intestines, gall bladder, kidney, uterus and ovaries. The disorder arises from the second to the tenth day subsequent to operation. While there is no microscopic lesion or pathologic condition visible after death, to account for the gastrorrhagia, in many cases, in some there are numerous hemorrhages into the gastric mucosa and in others small recent ulcers have been found. The causation I believe to be unsolved, although Robson notes that in six of Eiselberg's cases there was ligature of the omentum, and in the seventh the omentum was probably contused; also that in an experiment on an animal, multiple hemorrhages into the stomach followed twisting of the omentum. Rodman, however, failed to produce any bleeding or even congestion of the stomach in four experiments conducted by him on dogs, in which the omentum was twisted into a rope and ligated high up, and the liver, spleen, pancreas and intestines likewise subjected to pressure and mechanical violence under the supposition that blood might be forced back into the small veins of the gastric musoca by these procedures.

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*Read before the King County Medical Society, Seattle, Wash., February 16, 1903.

Rodman regards sepsis as the etiological factor in post-operative hematemesis, since sepsis favors disintegration of the blood corpuscles and predisposes to hemorrhage, and because the gastric mucous membrane is specially prone to congestions both on account of the frequency of vomiting after operations and the tendency of the thin, partially disintegrated blood to settle in the internal organs. Post-operative hematemesis has occurred after the use of cocaine, and again when vomiting did not follow the employment of general anesthetics, so that vomition, ether and chloroform may be ruled out as causal factors. There are no evidences of sepsis in most of the reported cases, neither in Mayo Robson's nor in the one I am about to describe, and as gastrorrhagia has followed within twenty-four hours of an operation and after simple exploratory laparotomies, it would seem as if sepsis was not an altogether satisfactory explanation of this phenomenon. The relation of a case of post-operative hematemesis may be permitted. It followed an operation for strangulated umbilical hernia.

Mrs. J. was a short, exceedingly stout woman, about sixty-five years of age. Her general health had been good with the exception of some shortness of breath. She had an umbilical hernia as large as an infant's head, which had existed for perhaps twenty years; it had been incarcerated at times, but reduction had occurred spontaneously. The reduction was probably only partial. I saw the patient in consultation with a medical man, the brother of the patient, late one evening in a town about thirty miles from Boston, some two years ago. There was a history of colic and vomiting for the previous six hours, with unsuccessful attempts at reduction of the hernia by taxis, ice bags, etc.

An endeavor on my part did not prove any more satisfactory under ether, and at midnight I operated, assisted by two physicians, a trained nurse and some kerosene lamps, at the home of the patient. Two elliptical incisions were made in the middle line of the abdomen at a point three inches above the hernia, and were continued as close as possible to either side of the hernial mass, meeting about two inches below it, and dividing all the structures of the abdominal wall down to the peritoneum according to the method originated by Condemin in 1892. The peritoneum was then opened on the left side, and the finger introduced into the abdominal cavity and thence into the hernial ring from within. With the finger as a guide, a knife was introduced into the ring from the abdominal cavity and the sac was completely divided from within outwards by a transverse incision through all the tissues of the wall, from the peritoneum to the skin, beginning at a point just to the left of the umbilicus and joining the middle of the left vertical, or rather elliptical, incision. The contents of the sac—transverse colon, small intestine and omentum—were thus readily exposed. The sac was multilocular and there were many adhesions uniting the bowels, omentum and sac walls. The adhesions were easily separated, a small portion of the omentum was ligated and removed, and the intestines were returned in good order into the abdominal cavity. The whole hernial sac and adjacent parts were excised by dividing the peritoneum through the original incision. It now appeared that the edges of the wound could only be approximated with difficulty, and an attempt to suture the peritoneum, fascia and skin separately had to be given up on account of the tension brought to bear on the peritoneum, more particularly in the upper part of the wound. The wound was, however, brought together and held in good apposition by interrupted silkworm-gut sutures placed through all the layers of the abdominal wall, which was tremendously thick. The operation consumed about an hour, the patient rallied satisfactorily and had taken so little ether that she was talking with the etherizer while the dressing was being completed.

The after-progress of the case was at first fairly satisfactory, although there was some vomiting following the anesthesia and the pulse was intermittent and not of great strength. The temperature was elevated a degree on the second day, but was 99 degrees on the third; the pulse rate was not high, there was no pain, and the patient wanted to sit up. On the evening of the third day the patient began to vomit, and the nurse noticed for the first time that a dark fluid was brought up in small quantities without retching. About midnight a messenger came hot-foot to my house, saying that the patient was dying. She was in fact dead on my arrival, in fifteen minutes, having suddenly vomited an enormous quantity of dark blood and then immediately expired.

At the autopsy next day considerable dark, clotted blood was found in the stomach and intestines, but no lesion of the mucous membrane was discovered on careful search. There was no evidence of infection; the bowel was wholly normal; the wound had healed perfectly by first intention, and there was no sign of tension on the stitches, notwithstanding the difficulty experienced in coapting the wound at the time of operation. The lungs were much congested and there were some clots of blood in the bronchial tubes, so that at first sight it looked as if the hemorrhage had been pulmonary. But there had been no pulmonary difficulty, no coughing or spitting of bright, frothy blood. The blood ejected had been dark, and had been distinctly vomited in great quantity just before the end, so that the blood found in the lungs must have been inspired in the latter moments. Nothing else noteworthy was found post mortem.

REPRINT.

THE RECIPROCAL RELATIONS BETWEEN PHYSICIANS AND MEDICAL JOURNALS.*

By Burnside Foster, M. D.,
Editor St. Paul Medical Journal, St. Paul, Minn.

Probably no one who has given thought to the subject will deny that there are too many medical journals published in the United States, and yet it is not likely that any two persons would agree as to which ones should be stricken from the list as superfluous and unnecessary. I propose to discuss briefly the subject of medical journalism, the relation of the medical journal to the practitioner of medicine and the duty which, it seems to me, the physician owes to medical journals. There is no physician in active practice, no matter whether he lives in a large city or practices alone in some isolated community, who does not need to be kept in touch with the world of medicine, and he can only do this by means of medical journals. The weekly journal is the most popular and is the most valuable, and there are few physicians who cannot afford two weekly journals. The Journal of the American Medical Association should be received by every physician in America; as a matter of fact it is received by about one-tenth of them. The cost of this journal should not be charged to the medical journal expense account, since it seems to me that five dollars a year is little enough to pay for the privilege of membership in the American Medical Association, and the journal is sent to every member who pays his annual dues. In the Journal of the American Medical Association, the physician not only finds an account of all that takes place at the annual meetings with the full text of all the papers that are read there, some good, some to be sure, bad, and some of indifferent merit, but he finds the reports of numerous important medical societies which meet at various times and in various places during the year, a considerable number of important articles written especially for the journal, much good editorial discussion of the burning medical questions of the day, and an excellent digest of the current medical literature of the world as well as interesting medical news items from different parts of the country, reviews of recently published medical books and correspondence from different sources concerning medical questions of interest, the whole being completely and exhaustively indexed at the end of each volume. All this the physician gets each week as one of the privileges of membership in the American Medical Association. In addition to the journal of the Association, the writer believes that there are very few physicians who cannot afford one other weekly medical journal. There are a number to select from, each having something to commend it, and while it is not my purpose to make any invidious comparisons, it is my own strong conviction that the journal whose ownership is divorced from all outside business interests, and which is largely managed and controlled by medical men, is the one which most deserves and which will best repay their support. Such a journal can fearlessly discuss and expose the schemes which are, and which always will be, from time to time devised for the furtherance of individual interests at the expense of the good name of Medicine. Having two weekly medical journals, it might seem that the average medical man, especially if he felt obliged to figure his expenses closely, as which of us does not? was well supplied. So he is well supplied, and if his only object is to keep in touch with the general world of medicine, he may perhaps stop with his weekly journals. The physician who does not live in or near one of the great medical centers where the medical weeklies are published, feels or should feel, another need which it is the function of medical journalism to supply. This need, and a most important one it is, is to keep in touch with the profession of his own neighborhood; nearly every county has its own medical society, every county which has physicians enough to organize one, should have its own medical society, and there are numerous other local medical societies, and every state should have its own medical journal, which should have as one of its most important objects the placing on record of the doings of the various local medical societies and the publishing of the more important papers read before them. Such a journal if well conducted should receive the support of the whole profession of the state. The ideal plan would be for the state medical society to own and publish the journal and have it occupy the same relation to the medical profession of the state as the Journal of the American Medical Association occupies to the medical profession of the country. Where there are a number of rival medical journals in the same state, it is the duty of each physician to ascertain the best one, usually an easy task, and give that one his earnest support. In return for this support what does the medical journal owe to its subscribers? It owes them the prompt publication of all medical society reports and notices, whenever such are furnished in proper season by the secretaries of these societies; and here let me say, in passing, that these societies should insist upon their secretaries sending reports of their meetings, regularly to at least one of the journals published in the state. It owes them an active support in all matters pertaining to medical organization and medical legislation for the suppression of quackery, and for the regulation of medical practice. It owes them a fair, honest and discriminating review of all new medical books, by men competent to write such reviews, so that its readers may know which of the new books it will pay them to buy, and which ones to avoid buying. A most valuable feature of the local medical journal, and one which cannot fail to be of great service to its subscribers if the work is well done, is the abstracting of the important contributions to the different departments of medicine and surgery, taken from current journals which its readers are, for the most part, not likely to have access to.

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*Reprint from St. Paul Medical Journal, July, 1902.

The local medical journal has a very important part to play in the uniting and organizing and holding together the members of the medical profession in its own territory, in voicing their sentiments on all matters of general interest to the profession and also in bringing the medical men of different parts of the country into closer touch with each other. Many an important contribution to medical literature has been made in a paper read before some little known local medical society, which would perhaps never have been printed had not the editor of the local medical journal pursued its author until he was finally induced to put his manuscript into shape for printing and send it in for publication. Many rare and important clinical observations are recorded in the local journals, which, were it not for the existence of these journals would never be recorded. Such papers and clinical reports frequently give rise to correspondence between medical men in different parts of the country and form the starting point of pleasant and valuable friendship between physicians who might otherwise have never known each other.

The local medical journal is a perfectly legitimate and a convenient medium by means of which those who are engaged in certain special lines of practice may make themselves and their work known to the profession of the state, either by means of papers and case reports, or by means of a standing card in the advertising pages of the journal. This latter method has never found favor in this part of the country, although in many places it is a common practice and there can be no ethical or other objection to it.

The local medical journal owes something to its subscribers in regard to the advertising contracts which it accepts and it certainly owes it to its subscribers not to sell to its advertisers a line of its reading pages. It is impossible to draw a hard and fast line between those advertisements which it is proper to admit and those which it is not; there will always be certain preparations concerning which opinions will differ. I believe all will agree that preparations of unknown composition should not be admitted. There can, however, be but one opinion on the subject of printing as original articles or as editorials, matter which is furnished by the advertiser concerning his preparations. This, it seems to me is the lowest form of prostitution of which a medical journal can be guilty. The subscribers to a medical journal, certainly have a right to demand that what they are given to read shall represent the honest and sincere convictions of the contributors to, or the editor of the journal, and not advertisements disguised as reading matter.

If the local medical journal honestly strives to perform its duty to its subscribers as I have outlined it, and to be in all respects loyal to the best interests of the medical profession, it surely has a right to expect something in return from the medical men in its legitimate territory. It should receive their subscriptions with prompt annual payment of the same. It should receive their support in the various ways which will help to make the journal prosperous and successful. Every physician has from time to time interesting and unusual clinical experiences which should be placed on record, and the writing out of which takes but a very short time. Medical journals are always eager to receive these clinical reports and they are often more interesting and valuable to their readers than the longer and more elaborate papers. Medical men can assist the medical journals very materially by reporting their interesting cases more frequently than they do and they will find that the doing so is of both direct and indirect advantage to themselves in various ways. It is not only the successful diagnosed and treated cases that should be reported, but the failures and mistakes should also be recorded, the latter being often more valuable than the former. The readers of a medical journal may also be of great service to the editor, and add much to the value and interest of the journal, by giving him editorial suggestions from time to time. A medical editor, if his heart is in his work, desires to so conduct his journal that it will reflect the best thought on all important medical questions, not only of general but also of local interest. Many subjects must from time to time suggest themselves to the readers of the journal which have not occurred to the editor and the discussion of which would be of interest and of value. Physicians would confer a real favor upon the editors, at least upon some editors, by corresponding with them occasionally upon the editorial management of their journal. Letters to the editor, for publication, upon subjects either of local or of general medical interest are always gladly received and show a friendly interest in the journal, which is always pleasant to the editor.

Another thing which medical men owe to the good medical journals is, not only to refuse to support, but to do all in their power to discountenance the poor ones. There are a large number of cheap medical journals, usually owned and managed by persons having no interest in the medical profession, which are conducted solely for the purpose of making money and whose editorial and reading pages are for sale to the highest bidder. The pages of these journals are usually filled with so-called original articles which are furnished by their advertisers, and which consist for the most part of spurious case reports of patients said to have been cured by this or that proprietary or patent medicine. These journals usually have a large circulation, because, having practically no bona fide subscription list, they are mailed to physicians whose names are taken at random from the medical directory, and they can make their circulation as large as they desire. Such journals are not only a blot on medical journalism, but they are distinctly detrimental to the interests of scientific medicine, and should be repudiated and discountenanced by all decent physicians.

Medical journalism as a whole can be, and should be, moulded by the medical profession as a whole, and if medical men would give a little more thought to the matter they could easily eliminate the bad journals and maintain and improve the good ones. If every physician who has at heart the best interests of his profession, and of scientific medicine, would look carefully into the subject of medical journalism and having thoroughly surveyed the field would subscribe only to those journals which appeal to him as being substantial, clean, honest and well conducted, and would not only refuse to subscribe to, but would refuse to support in any way, those journals which are either owned by or which pander to commercial enterprises whose only object is to make money out of the medical profession, we would have fewer and much better journals.

NORTHWEST MEDICINE.

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Published Monthly by the Washington Medical Library Association.

Editorial and Business Office - - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Application Made at the Seattle Post Office as Second Class Mail Matter.

VOL. 1. MARCH, 1903. NO. 3

THE FREE DISPENSARY.

It may seem superfluous at this day to discuss the free dispensary and enumerate the abuses that inevitably follow in its trail, considering the publicity given the subject during recent years, in the medical journals of the land. The first introduction of such an institution into Seattle and the conditions surrounding it justify the presentation of the matter again to the medical public.

It should always be borne in mind that hostility to a particular dispensary, on the part of the medical profession, cannot impute to it a lack of charity or consideration for the needs of the poor. It is recognized by all that no class in any community extends such an amount of gratuitous service to the indigent sick as do the physicians. Their mutual relations are such that the latter are the most competent judges in any city, as to whether the former are neglected and permitted to suffer. Hence the views of the profession are of the greatest value in determining, in a given case, whether a demand exists for the introduction of a free dispensary. In this connection a distinction should be drawn between a legitimate charity, established by philanthropists to satisfy a demand to care for the poor and needy, and an institution propagated by interested members of the medical profession for their own ultimate, personal benefit, under the guise of charitable organizations or individuals. The latter is too often the real situation, while the public is led to believe the former exists. The injustice to the younger members of the profession, resulting from the abuses of the free dispensary, as well as its pauperizing influences on a certain portion of the community have of late years led the interested members of the laity, who have given thought to the matter, as well as the medical profession at large, to seriously consider the necessities of the situation before recommending its establishment. This view is reflected in the lay press as well as medical journals of eastern cities, where these abuses have been most extensively exploited.

The mere fact that a free dispensary does not exist in a city is no reason of itself for starting one, but it should first be demonstrated that there is suffering and illness resulting from the lack of proper medical attention to the needy sick. On this basis has it ever been shown that Seattle demands a free dispensary? The County Hospital is always available for those needing hospital care who have not the means to pay for attention in one of the private institutions. We have not yet learned of patients being refused admission here on account of overcrowding. For outdoor patients the Health Office maintains a daily clinic, where all are properly treated on application. It is learned from the Charity Organization Society that calls for medical aid on the score of destitution are remarkably rare. Improvidence, intemperance and temporary discouragement constitute the cause, rather than poverty, of the larger portion of the demands for assistance. The absence of dire poverty in the city is in marked contrast to the conditions in older cities of the East, and patent to anyone familiar with charity work. Hitherto it has been a cause for congratulation that the free dispensary has not been introduced into the State of Washington and that the necessity for it has not existed. We believe the same conditions hold in this respect at the present time, as in the past, a belief shared by the medical profession as a whole.

Whenever it becomes evident that a charitable dispensary is demanded in Seattle, or any other city of the State, municipal or private benefactions will provide the means for its establishment, in the locality where it will be most available for the needy, as has been done, at the proper time, in all the large cities of the land. We do not consider these conditions are at all fulfilled by a so-called free dispensary, organized by physicians, located in their private offices and, for the purpose of giving it a standing before the public, associated with the names of the leaders of charity work, as has been the case with that now under consideration. The claim that funds are not available for placing it among the poor is a confession that there is no legitimate demand for its existence. Whenever the necessity arises for a free dispensary in Seattle, and one is founded on a charitable basis, free from private, ulterior aims, it shall receive our hearty sympathy and support. At the same time, the medical profession can be relied upon to sustain it and aid in accomplishing the good which may result from it.

FORMALIN IN SEPTICAEMIA.

The reported success in treating streptococcus infection by subcutaneous injection of formaline again illustrates the danger of incurring unfavorable reflections on scientific medicine, by the premature announcement of a medical discovery. When a certain physician in an Eastern city published his description of several cases of puerperal septicaemia cured by this means, the lay press at once proclaimed to the world that a sure cure had been discovered for blood poisoning. Naturally, the friends of sufferers from this form of infection have sought this expected salvation from a hopeless condition. A few more cures have been claimed, some cases are reported unimproved, and deaths have been attributed to it. In the enthusiasm for proving the efficiency of a new mode of treatment, one is apt to give insufficient weight to other contributory factors. The uterus was cleaned out in the puerperal cases; the simple dilution of the blood is well known to weaken the ill effects of the circulating toxines and to aid in their elimination. The subcutaneous injection of a saline solution is orthodox treatment of septicaemia for this purpose. There now seems to be a question whether the formalin, *per se,* possesses any beneficial qualities. Experiments conducted by Dr. Park in the laboratory of the New York Board of Health showed that, in rabbits inoculated with the streptococcus, deaths occurred sooner in those subsequently injected with a formalin solution of the strength used in man. Their resistance to the invasion of bacteria was lessened thereby. The conclusion was that the formalin injection was not only of no use in septicaemia, but was a probable source of danger. Experiments with this form of treatment will doubtless continue for a time, until it falls into oblivion. Ever since the world-wide disappointment over the failure of Koch's tuberculin as a cure for consumption there has been a more marked spirit of caution on the part of the medical profession in accepting new and wonderful discoveries. This is well. In behalf of scientific medicine and the welfare of suffering mankind let us have as complete a demonstration as possible, from laboratory and animal experimentation, as well as treatment of human subjects, before recommending a new and radical remedy to the medical world.

THE MEDICAL JOURNAL AND THE MEDICAL PROFESSION.

Although we may appear insistent to again recur to our views as to the ideal medical journal, we feel it important to emphasize, repeatedly if necessary, the course we have laid out for our future journalistic career, that our readers may clearly understand our aims and principles. We believe that, if these are thoroughly comprehended and we succeed in harmonizing our practice with our profession, we shall receive the united support of the physicians in maintaining a clean and approved journal. We have seen nothing in print that so thoroughly expresses our views on this subject as the article entitled, "The Reciprocal Relations Between Physicians and Medical Journals," from the *St. Paul Medical Journal* of July, 1902, written by its editor, which we reprint in this issue. The policy herein outlined and strictly followed by this journal has brought to it success and a reputation more than local. It has also demonstrated the ability of a properly conducted journal to materially assist in forming and maintaining a medical library, that in St. Paul being a source of pride and profit to all who are able to take advantage of it. These facts were reviewed in an editorial of the *Journal of the American Medical Association* of Jan. 13, in which the results obtained and the means employed were the subject of marked commendation. In their case the County Medical Society assumes responsibility for the journal, library and a laboratory for the use of the profession. These combined interests, available to all who care to utilize them, have proved of great value to the physicians of that section, and have helped to bring them more closely together.

Although our plan of formation differs from this, in that the Library Association publishes NORTHWEST MEDICINE, instead of the county society, yet our ultimate object is the same, to aid in founding and maintaining a medical library, in our case for the benefit of the profession of the Northwest. We wish to commend the above mentioned article to our readers. We endorse the writer's views as expressing our own concerning the conduct and management of the ideal medical journal. Since we purpose to follow along the lines herein described, we shall anticipate the co-operation of the large majority of the profession, who are known to favor the journal, maintained for their interests.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held in the Seattle Chamber of Commerce on the evening of Feb. 2, 1903, the President being in the chair. Forty-three members and six visitors were in attendance. The following were proposed for membership: J. A. Ghent, R. M. Stith, W. M. Patterson.

Reports of Committees on Finance and Admission and Ethics were deferred till next meeting.

Dr. Schoenle spoke concerning the free dispensary which had been organized by certain members of the society, to be conducted in their offices, in connection with some charitable organizations. At his suggestion the Secretary read an account of the institution, taken from one of the daily papers of a recent issue. An animated and prolonged discussion ensued, the following members expressing their views on the subject: W. A. Silliman, J. B. Eagleson, A. Raymond, C. W. Sharples, R. W. Schoenle, Carl Hoffman, J. C. Moore, H. Stillson, D. DeBeck, F.P. Gardner and S. J. Holmes.

It was clearly shown by the discussion that there was absolutely no need of a free dispensary in Seattle; that the physicians of the city had in the past and would in the future attend any and all cases among the worthy poor, answering to their call day or night. It was also pointed out that the establishment of such an institution would be followed by others of a like character, with the result that the present conditions would be altered for the worse. The present brotherly feeling existing between our physicians would be replaced by bitterness and jealousy; that fees would be reduced, a large percentage of our population pauperized and what is now a prosperous and pleasant field for both the established practitioner and his newly arrived brother, be changed to the unpleasant conditions obtaining in the cities of the East.

J. A. MacKinnon and J. W. Bailey, two members of the staff of the free dispensary, made explanations as to their connection with the project, and expressed their willingness to proceed according to the wishes of the society in the matter. They stated that they had acted in good faith and with no ulterior motives, and that they were ignorant of the society's attitude toward the establishment of a free dispensary in the city.

On the motion of Dr. Schoenle it was unanimously voted that the society put itself on record as strongly opposed to the establishment of a free dispensary in the city, and that the president appoint a committee of three to draw up suitable resolutions. Drs. C. W. Sharples, R. W. Schoenle and S. J. Holmes were appointed as such a committee.

The first paper of the evening was by Dr. C. B. Ford, entitled A Report on Typhoid Fever Cases. (See page 129.)

Dr. Raymond said that it had been proven in the South African war that the urine was the most common medium for conveying typhoid. Patients returning to their home towns and villages started local epidemics in this manner. It was proven that the urine contained myriads of bacilli and that they could live for months in it and then become a source of infection. He stated that he had treated the father of this family, mentioned by Dr. Ford. A sister contracted the disease, went to the hospital and died. A nurse connected with the case also contracted it and died from the same cause. We cannot be too careful in our instructions to friends and nurses attending typhoid patients, to observe scrupulous care in cleansing hands and utensils.

Dr. Heussey remarked that in certain London hospitals typhoid patients were instructed to disinfect the urine for a period of six months.

Dr. Holmes complimented the writer on the excellence of his paper. The cases described by him are valuable for instruction, as they were all evidently from the same source of infection. He wished to correct the writer as to the life period of the typhoid bacilli outside of the body, the limit of which is said to be four weeks. It is stated they cannot live longer than fourteen days in water, which is not a favorable medium for their growth, and he did not believe their existence, out of the human body, was prolonged except under favorable circumstances. He would criticize the statement that they can pass through the intestinal tract without injury to the individual and then convey the disease to others. If they survive the unfavorable acid medium of the stomach, they will find a favorable location for growth in the alkaline intestinal tract.

Dr. Ford gave Dr. Vaughn of Ann Arbor as his authority as to the life period of the bacilli. He emphasizes the fact that they may pass through the intestinal tract without harm to the individual and then infect another. A person may take a culture into the mouth at the same time with food that will cause diarrhoea, and the latter will eliminate the former, without causing typhoid fever. As to the life of the bacillus he cited an authority who planted a typhoid culture in the ground in July. Next spring he treated the ground with sterile bouillon and in June obtained a pure culture of the bacilli, eleven months after the planting.

Dr. Stillson next read a paper on The Behavior of the Iris in General Diseases. (See page 132.)

Dr. De Beck said that in the study of pupillary phenomena and inflammations of the iris, the ground covered is altogether too wide to offer a field for discussion in a meeting like this. That there is room for discussion of the statements made by the writer is shown by the fact that this whole beautiful scheme of nerve transmission is denied by certain authorities. A German writer has published a large book to prove this whole theory of decussation is false. Charcot also denied the existence of the whole plan, though he claimed the existence o further anatomical facts to explain all the phenomena.

These involvments of the iris are mostly in infectious diseases, as variola, syphilis, rheumatism. And we commonly find the character of the iris affectio closely follows that of the primary disorder, as condylomata in syphilis, tubercle in tuberculosis. It is better not to go so deeply into the refinements of diagnosis but to group the symptoms, as conditions of irritation shown in contraction an dilatation, spinal reactions in the pupils, etc.

Dr. MacKinnon said: The paper read by Dr. Stillson was very well presented especially as to the anatomy of the nervous mechanism of the iris, in its behavior in the various diseases of its centripetal and centrifugal nerve paths. I should lik to emphasize more especially the clinical features of the subject, from the genera practitioner's point of view, since the subject for discussion is one that falls rather within his province than that of the eye specialist.

Motor disturbance of the iris means an affection which is characterized by some alteration in the size of the pupil, and may manifest itself, either as a mydriasis or a myosis. The former may be due to a diseased process irritating the pupil, dilating centre or fibres in the sympathetic nerve, termed "irritation mydriasis," and occurs in all forms of physical excitement. It usually is present during the pre-ataxic stage of tabes, but soon gives way to the paralytic myosis, so characteristic of this disease. Unilateral mydriasis occurring at short intervals, first in one eye and then in the other, is a premonitory sign, according to V. Graefe, of mental derangement. Paralytic mydriasis, or iridioplegia, may occur as a paralysis of the third nerve nucleus, or as the result of the interruption of the light stimulus between the retina and this nucleus. It occurs in various diseased processes at the base of the brain, implicating the third nerve nucleus or its efferent fibres.

Myosis may also be considered under that of irritation myosis and paralytic myosis. The former is due to a diseased process irritating the pupil, contracting centre, the third nerve nucleus or its fibres, as in the early stages of all inflammatory affections of the brain and its meninges. Irritation myosis is also present in tobacco amblyopia, due to the irritation of the third nerve nucleus by the nicotine. I mention this from the fact that it is well to keep in mind the habits and occupations of those who come under our observation, manifesting pupil anomalies. Occupations requiring long maintained efforts at accommodation, as watchmakers, etc., subject the pupil contracting centre to an almost constant stimulus and may be the cause of "physiologic myosis." Paralytic myosis, due to paralysis of the pupil-dilating centre or nerve fibres, occurs in grey degeneration of the posterior columns of the spinal cord, hence the term, "spinal myosis." The characteristic pupil in this disease, first described by Argyll-Robertson, showing no response to light, but, though myotic, contracting still further to accommodation, was regarded as an implication of Meynert's fibres in the diseased process. These fibres constitute a part of the "reflex ring," which carries the light impulse from the corpus quadrigeminum to the oculo-motor nucleus.

Dr. Raymond was much disappointed in the paper. He had hoped, from its title, to receive information as to the condition of the iris in general diseases, as seen by the general practitioner. It was too much in the air. We should deal with things of a practical nature and he had heard nothing of that character except in some of the remarks of the other men in discussing the paper.

Dr. Bailey followed with a paper on Beri-Beri, A Clinical Study. (See page 75, February number.)

Dr. Sharples said that Dr. Bailey was to be congratulated on the opportunity for seeing so many cases of this disease. He doubted whether any other physician in this country had seen so many. He had neither seen nor read another American paper on the subject so complete as this. Cases of beri-beri are of extreme importance to us on this Coast. There is a section of Louisiana where the disease was never known till the introduction of rice culture, within five years, when frequent cases are said to have occurred. The reporter of them, however, did not go into detail and they do not seem to have been serious. As the growth of rice had been introduced he seems to have jumped to the conclusion that this was responsible. A writer from Manila claims to have found a micro-organism in rice that is the cause of this multiple neuritis. It has also been said that certain germs have been found in beri-beri that are pathognomonic. Another man says that by feeding spoiled rice to animals symptoms of this disease have been produced. Feeding rice for a long time to dogs will cause death, and some writer has said it is accompanied by paralysis.

The Norwegian article, referred to by Dr. Bailey, also states that till within a few years no case was ever found in a ship manned by Norwegians. The writer then reported the details of a number, in which whole crews suffered the disease, which he attributed to the diet, consisting chiefly of canned foods. They were cured by the use of fresh foods and oils. A certain ship, loaded with sugar, developed cases, thought to be due to the generation of carbonic acid gas in the sugar. The question of its etiology is not definitely settled. Most cases occur among the Japanese and in Japan a change of air is said to be curative. Patients are sent to the mountains and soon recover. When one has once suffered from it he is said to be more susceptible to another attack. Death is comparatively rare.

Dr. Russell said he had never seen a case of the disease, but had read that in Japan the matter of food was considered of the greatest importance. He presented a newspaper clipping concerning the studies that Prof. Oshima, of Japan, is conducting at Wesleyan University, as to the nutritive value of foods. He stated that formerly rice was one of the principal articles of food for the Japanese army and navy. About 36 per cent. of the mariners were affected with beri-beri. The cause was attributed to a lack of proteid diet. Accordingly barley was substituted, which is richer in protein, but was found to possess less nutritive value. When meat and fish were introduced, and bread substituted for a part of the rice, the disease disappeared.

Dr. Cook said he knew of the ship which Dr. Bailey mentioned as entering Port Blakely. The crew was composed chiefly of Chileans, only the officers being Americans. When she reached Port Townsend all were affected with the disease, only the captain and a boy being able to get about. The diet consisted chiefly of canned goods and rice.

In closing, Dr. Bailey said the reason he saw so many cases was that he was in a mining camp, where the laborers were treated by the company physician, and they presented themselves in the early stages of the disease. The camp had sunshine only a short time in the afternoon and could never dry out. There were fewer cases where was more sunlight. Manson has a different theory as to the origin of the disease, that its germ exists in the ground and there develops. He had never found albumen in the urine. If it existed he believed it was due to another cause. He had read no authorities on the matter.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of February 16, 1903, the President being in the chair. Thirty members and seven visitors were present. The following were elected members of the society: R. M. Stith, F. A. Churchill, Wm. Patterson.

The committee appointed one month ago to consider the division of the society into sections reported that, after due deliberation, they had concluded the society is not yet of sufficient size to warrant the experiment of such a division, and accordingly they recommended that the plan be rejected. The report was accepted and ordered placed on file.

The committee appointed at the last meeting to draft appropriate resolutions concerning the free dispensary reported as follows:

The King County Medical Society desires to state these facts as a foundation for the ensuing resolutions, which are drafted to express its views in the matter of a free dispensary. This is a purely personal interest, that is, personal to the medical profession.

This society has always been composed of a particularly respectable and harmonious group of men. The establishment by a few physicians and surgeons of a free dispensary in a city of Seattle's population will lead of itself, by the force of human nature, to the establishment of a second and third, etc. From these will arise factions among ourselves and a consequent loss of the present universal good fellowship. In larger cities, where there are numerous dispensaries, the aim, both of the lay managers and of the attending physicians and surgeons, seems to be to ascertain how many names and how large a variety of diseases can be put upon their books. They seem to cater to the opportunity of doing free work, and in this endeavor, extended without restrictions, people of all classes are invited to share the bounty that should be restricted to a pauper class. People of moderate incomes are encouraged to put themselves on a level with paupers. Any community that tends to pauperism is injured thereby. Most of us in Seattle know the degree to which the free dispensaries of Eastern cities are abused, and we can see no reason why this city should not follow in the footsteps of this abuse if these institutions are to be established.

The King County Medical Society should refrain from lending its sanction to any movement, tending in the smallest degree to encourage pauperism in Seattle. This city is heralded throughout the length and breadth of this country as being in a most thriving and prosperous condition, which this society believes to be true. We know that those depending on labor of all kinds for their livelihood receive high wages. Work is plentiful and will continue so. Accordingly we believe it is not a proper or politic time for the establishment of a free dispensary. During the year 1902 the health officer and his assistants extended free treatment to 1,556 patients.

RESOLUTIONS.

WHEREAS, It has come to the knowledge of the King County Medical Society that a free medical and surgical dispensary is about to be established in the city of Seattle; and,

WHEREAS, It is the opinion of its members that no need or requirement for such exists; and,

WHEREAS, It is the desire of the members of this society to administer to those in need of medical and surgical care, who, through indigence, find it impossible to pay for such services; and,

WHEREAS, We ever esteem it a part of a physician's duty, and exercised with the fullest pleasure, to attend such of our worthy poor as apply for our assistance; and,

WHEREAS, It has always been a part of our sacred calling to cheerfully extend such medical aid as called for, from day to day; and,

WHEREAS, The privileges of a free medical dispensary have at all times, and in all cities, been abused and its services extended to those not needing them; therefore, be it

Resolved, That we, the members of the King County Medical Society, look with disfavor upon the establishment of such a dispensary that will encourage pauperism and fail in the benefactions sought. Be it further

Resolved, That we not only discountenance any movement to such an end, but request any member of this society connected therewith to give due consideration to all the demerits of such an institution. Be it further

Resolved, That we extend to all persons interested in the organization of this dispensary the fullest assurance that we, the members of this society, stand ready at all times, day or night, to extend our services to any worthy poor person coming within our notice.

These resolutions were unanimously adopted by the society.

Dr. DeBeck presented a patient with CHOLESTEARIN CRYSTALS IN THE VITREOUS HUMOUR. Man, aet. 55, had suffered from "clouded" vision in the right eye for a year and a half without there having been any injury or severe inflammation in it. A light reflected in through the pupil, illuminating the interior of the eye, reveals a most brilliant picture. The little silvery specks go floating across the red background of the eye, very like a mimic snow storm on the stage, or stooting stars in the sky. He stated that the etiology of the condition is still dark. Most cases have been observed in pathological eyes, and usually in those with old destructive, degenerative changes. Thus we have been forced, for want of a better explanation, to fall back on the general assumption that these little crystals must be in some way a product of retrogressive changes—a perverted metabolism. But in some cases they have been observed in eyes that appeared anatomically normal, and even in which vision was but a trifle or only moderately impaired. This was the case here. His eye appeared in all respects normal; a very fair view of the fundus was obtainable, and showed only a moderate neuro-retinal softening and blurring; while his vision still remained 20-50. It is in these very cases that we are forced, with even greater rigor, to assume some such regressive or perverted metabolism. Poncet regards these as crystals of tyrosin, and others regard them as being phosphatic; but the great majority of the best observers hold them to be cholestearin.

Dr. W. A. Shannon presented a case of HODGKINS' DISEASE, with the following history: Mr. L., age 36, Swede. Claims this illness began three months ago, when he first observed a tumor growing in the right side of the neck. There has been a rapid increase till there is now a large mass extending from the angle of the jaw to the shoulder, soft to palpation in places, but mostly hard. It reaches almost to the median line in front. On the left side of the neck is a similar growth of smaller size. There is a large tumor in the right axilla, a smaller one in the left and large glands in the left groin. Liver dullness extends two inches below the ribs in the right nipple line. Area of splenic dullness extends half way to the umbilicus. There is rapid heart action. The patient complains of troublesome cough. His chief subjective symptom is progressive weakness. He has been under the care of numerous physicians and treated for tuberculosis, carcinoma and other ailments. Present treatment is confined to arsenic.

The blood count gives haemoglobin, 50 per cent.; red cells, 4,074,000; white cells, 7,209; differential count for 500 cells gives polymorphonuclears 87.4 per cent.; small lymphocytes 8.4 per cent.; large lymphocytes 4.2 per cent; eosinophiles 0.

Dr. Smith called attention to the fact that this case sustained the claim of the authorities that, in this disease, the blood usually approximates the normal and the value of a count for diagnostic purposes is a negative one, to distinguish the case from leukemia. Although it has been stated that this disease may terminate in leukemia this is not supported by the great majority of authorities. When a leucocytosis is found this is attributed to some other inflammatory condition.

The paper of the evening was read by Dr. Winslow on POST-OPERATIVE HAEMATEMESIS. (See page 139.)

Dr. Eagleson stated that about a year ago he operated on a patient for gall stones. No complications ensued and she appeared to be making a normal convalescence. On the evening of the eighth day she felt especially well, having received callers. At three o'clock in the morning she vomited a pint of dark blood and died at once. At the autopsy the stomach was found full of blood. At one spot was an abrasion where a small vein appeared to have ruptured and a slow oozing followed. No cause for the condition appeared. He had seen no other cases nor read of any.

Dr. Winslow asked if the patient had much cholemia at the time of operation, recalling that such were said to be especially prone to haemorrhage. Dr. Eagleson replied in the negative.

Dr. Wotherspoon said that about four years ago he saw a young man who had undergone an operation for appendicitis. A few days later he began to vomit blood. An incision was made over the stomach, but no cause discovered for the bleeding. At his death, in about a week, the autopsy disclosed no apparent cause for the condition.

Dr. Warmburg stated that a surgeon in Berlin had such a case and he explained it as due to engorgement of the gastric veins, as occurs in bleeding piles.

Dr. Sharples operated, some time ago, on a girl of twenty years for tuberculosis of the kidney. She did well at first, but next morning vomited a large quantity of blood and suddenly died. He did not obtain an autopsy and learned nothing of the cause.

Dr. Willis thought that the cases of Dr. Winslow and Dr. Eagleson were of different natures. The latter might have resulted from the condition of the blood, as is common in cholemia, which could not have occurred with Dr. Winslow's. Dr. Eagleson repeated that his patient exhibited no obstruction of the gall bladder and hence there could have been no cholemia. Neither was there evidence of any inflammatory condition, without obstruction.

The President asked whether in any of the cases related there was a suspicion of haemophilia.

Dr. Winslow, in closing, said that he had read no such reports. As far as he knew only the two writers quoted by him had written on the subject. There were no enlarged veins in the stomach of his patient. In some cases have been found ulcerations, in others nothing abnormal.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. HOLT, M. D.; Secretary, F. J. VANKIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held Feb. 9, 1903, the President being in the chair. The minutes of the last meeting were read and approved.

Under new business Dr. Axtell presented a communication entitled "An Act to Amend Sec. 5186, Ballinger's Annotated Codes and Statutes of Washington, Relative to Security for Costs." The doctor explained that the proposed amendment was in the interest of security to both the medical profession and mill owners, from whom the profession received liberal fees. The society by a unanimous vote indorsed the measure, and instructed Dr. Axtell and the secretary to place the matter before the legislative members from Whatcom County.

A communication was read from the agent of Polk's Medical Directory regarding the purchase of a new directory for the use of the society. Upon motion of Dr. Compton the society voted to lay the communication upon the table and the Secretary was instructed to make reply to Messrs. Polk & Co. "That as long as the spirit of commercialism dominates the publication of this work to the extent of advertising a well-known proprietary preparation of secret composition, that this society does not care for a copy."

In accordance with notice given at our last meeting Dr. Teel moved that the by-laws be amended to read, "That hereafter the annual dues of this society shall be four dollars, instead of two," this change being necessary to meet the yearly assessment of two dollars per member from the State Medical Association. The motion was unanimously carried.

The paper of the evening was presented by Dr. Compton, entitled INFANTILE ECZEMA. The doctor covered the subject in an able manner and particularly dwelt upon the necessity of rigid dietetic and hygienic management. He did not believe that teething was an etiological factor and discredited metastatic involvment. Nor is it harmful to cure the disease too quickly, as the laiety frequently supposed. Its diagnosis from syphilis, scarlet fever and impetigo is usually not difficult. The disease should be treated by improving the general surroundings, avoiding proteid foods and all washes of an alkaline character. The doctor favored a milk diet with local applications of a lotion of salicylic acid.

Discussion was opened by Dr. Markley, who had found the disease a difficult one to manage. General discussions followed.

The meeting adjourned to meet the second Monday in March.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE.

Edited by

C. W. Sharples, M. D.; H. M. Reed, M. D.

The Etiology of Acute Articular Rheumatism. (Geo. M. Webster, Journ. of the Amer. Med. Assn., Jan. 10, 1903.)

The word "cause" in any disease is used, bearing two factors, i. e.: the infecting agent and the susceptibility to infection. The word rheumatism is applied to non-suppurative arthritis.

Gustav Singer contended that rheumatism was a modified pyaemia, due to streptococcal and staphylococcal infection, and he also claims that polyarthritis is only an occasional event in rheumatism. Achalme claims that the disease is due to an infection of a specific anaerobic bacillus of large size and variable morphological characteristics. In a later communication he (Achalme) concludes that it is a saprophyte whose development in the blood is favorably influenced by heat or cold.

A third view is that acute rheumatic fever is not due to any specific organism but is a reaction to varied infections, or that it is a specific result of a multiplicity of causes. But those arthritic infections of specific organisms, as gonococci, pneumonococci, etc., are being designated as such, and not being considered as rheumatic.

The fourth view is that of Poynton and Paine, who in eight successive cases found a diplococcus that grew in streptococcal chains, and were best cultivated in a medium of milk and bouillon rendered slightly acid with lactic acid. During life pure cultures were obtained from the blood of three patients suffering from acute rheumatism, and after death from the pericardial fluid, the valves of the heart, the throat, the granulations on the valves, the joint exudates, heart blood, urine from the bladder, and the cerebro-spinal fluid of inoculated rabbits. These organisms inocculated into rabbits, produced polyarthritis, bursitis, synovitis of the tendons, valvulitis and pericarditis, plastic pleurisy and pneumonia, wasting and pyrexia, all closely resembling rheumatism in the human being. They claim that rheumatism is an infectious disease due to a diplococcus infection, for all the micro-organism does not explain all the phenomena of rheumatic fever.

The author concludes that many organisms produce arthritis, that probably all cases of acute articular rheumatism are due to an infection, that probably all organisms known to produce acute rheumatism and other forms of arthritis, produce other pathological conditions, that it is a general infection, the most frequent seats of the local manifestations being the joints, the endocardium, pericardium and myocardium, that there may be some hereditary peculiarity that favors infections in general, and possibly a rheumatic infection in particular, that depressions as cold, etc., may only favor the infection. Sharples.

Etiology and Prophylaxis of the Cardiac Manifestations of Articular Rheumatism. (Joseph M. Patton, Journ. of the Amer. Med. Assn., Jan. 10, 1903.)

Rheumatism is the most important cause of heart disease and now includes in its scope the so called idiopathic cases of endocarditis as well as the hereditary forms. The growing pains of childhood may be the rheumatic state that was responsible for the endocarditis. Sansom says that all cases of heart disease that occur under 35 years of age are rheumatic in origin, and also the cases of foetal endocarditis.

The relation of endocarditis to rheumatism may possibly be explained by the toxins produced by rheumatism, but the later researches go to show that it is a direct result of the bacterial invasion of the tissues and this the more so since valvulities has been produced by the injection of pure cultures of the diplococcus in rabbits.

Heart lesions, as complications of rheumatism, are of the pericardium, myocardium and the endocardium. Pericarditis occurs in percentages, varying according to different authors, of from 7.5 to 71.7 per cent. and endocarditis, generally conceded to be the most common lesion, from 9 to 61.3 per cent.; and in children, from 50 to 80 per cent.

The author believes that the best results, in guarding against cardiac lesions, are to be obtained by the administration of pure salicylic acid till the pain and fever are relieved, followed by salicyate of soda and diuretics (alkaline). Rest is most important and some cases of primary rheumatic endocarditis may be cured if the period of rest is prolonged enough. Holt says that months should mark the period of rest. Powell says that cases of rheumatism in children should be kept at rest even after all the joint symptoms have disappeared, (even though no cardiac symptoms have appeared. C. W. S.) Where cardiac symptoms are found, the recumbent position is to be kept till sitting up ceases to produce acceleration of the pulse rate or change of rythm. Sleep should be promoted. Of drugs, salicylates and iodidies are the most important. Diet should be carefully regulated, milk being preferred. External applications are hot and cold, the preference being for ice over the precordium for a long period. Repeated applications of small blisters has been recommended. SHARPLES.

PARACOLON OR PARATYPHOID INFECTION (Am. Journ. of the Med. Sciences, Jan., 1903.) The recent article by Dr. Herbert W. Allen is one of several interesting papers upon this somewhat paradoxical, pathological condition. He reviews the history of the organism causing the disease, from its discovery six years ago by Achard and Bensande. Allen defines the infection as a condition "clinically resembling typhoid, but which careful bacteriological examination has shown to be due to infection by organisms intermediate between the typhoid and colon bacilli." On the authority of Widal and Nobecourt he designates the name paracolon as the proper one, as the organism more closely resembles the colon than the typhoid bacilli. He reviews the cases reported by Gwyn, Schoot Miller, Kurth, and others, many of which showed all the clinical features of typhoid and at autopsy the fatal cases showed all the characteristic pathological lesions of typhoid fever. Nearly all the cases so far reported have given a positive Widal, some in dilutions as high as 1:250. Two of the three cases reported by Allen himself in the above mentioned article gave a positive Widal. Under the bacteriology of his cases Dr. Allen describes the bacillus as an "actively motile organism having the morphology of B. typhosus; the growth on agar and in gelatine was similar to B. typhosus; boullion was clouded; a trace of indol was found in Dunham's peptone mixture after one week; litmus milk was slightly acidulated after one week, which, after ten days, returned to color of the control; the organism fermented glucose and maltose with the production of acid and visible gas, but did not ferment lactose or saccharose."

"The organisms agree therefore very closely with most of the paracolon bacilli heretofore described." Dr. Allen refers to Johnston's recent article, in which all reported cases of paracolon infection are analysed, and which he says show that "most cases run a course fairly typical of a mild typhoid fever, and without the aid of the serum reaction, or a bacteriological examination, a differential diagnosis would not be possible." "Rose spots and enlarged spleen have been present in most instances, and relapses have been comparatively common." The autopsy referred to, and made by Berg & Libman "was a case of mixed infection, probably typhoid primarily, and a secondary infection with paracolon bacillus." He closes his paper with the somewhat peculiar statement that "while no very definite opinion can be drawn as yet, regarding the pathology of the disease, it is evident we are dealing with an infection quite distinct from typhoid fever."

[The practically scientific mind will be liable to identify the paracolon, typhoid, and colon bacillus as identical morphologically and pathologically, or else be at a total loss to understand how any disease, which exhibits every clinical feature of typhoid fever, including Widal's serum agglutination test, Erlich's diazo reaction, and which, post mortum, shows every pathological condition and lesion of typhoid fever, can be caused by else than the typhoid bacilli, regardless of any mixed infection or intercurrent pathological conditions.—H. M. R.] READ.

ALCOHOLISM IN CHILDREN. (A review of the writing of Dr. J. Grosz, in Am. Journ. of the Med. Sciences, Nov., 1902, taken from Archiv fur Kinderheilkunde, 1902, Heft 1, S. 15.) Acute Alcoholism as seen occasionally in children presents similar symptoms to those seen in adults. He saw two patients who were brought to the hospital in convulsions, who were controlled by enemata of chloral. The diagnosis was made by the odor of the breath. Several hours of deep sleep followed the convulsions, and one of the patients, a child of three years, upon awakening asked the nurse for brandy. Many parents have false ideas that alcohol strengthens the bodies of the children and give small doses to their children for a long time, and some even give it during the nursing period. From one-half to one teaspoonful of cognac or tokay, concentrated or diluted, are the quantities usually given.

The stimulation of the gastric mucosa produces a dyspepsia which may go on and produce a severe gastritis. Beer and light wines have the same result. Parents of the upper and middle classes give their children wine, beer, and cognac, while the poor class give brandy and whiskey. Continuous use of alcohol in children frequently produces cirrhosis of the liver, and four such cases were observed by the author. The profound effect which the use of alcohol in large quantities has upon the nervous mechanism is shown in the cases of epilepsy, chorea, and severe neuresthenia, traced directly to its use. READ.

SURGERY.

Edited by

J. B. EAGLESON, M. D.; E. E. HEG, M. D.

AN OPERATION FOR THE RADICAL CURE OF ANEURISM BASED UPON ARTERIORRHAPHY, (By Rudolph Matas, M. D., Annals of Surgery, February, 1903.)

After mentioning the old operation of Antyllus, where the artery is ligated on both sides of the sac and after evacuation of the contents the sac is left *in situ*, and that of Purman, in which the sac is extirpated, in both of which, and all modifications, ligation has been the method of haemostasis, he describes an operation whereby circulation within the sac and haemorrhage is controlled by suture of the openings into the sac after freely opening and evacuating the contents. The cavity is thus obliterated by inverting and infolding the walls of the sac with the overlying skin. He claims it is applicable to all aneurisms in which there is a distinct sac, and the cardiac end of the main artery can be temporarily controlled. He does not, however, advocate its use in the treatment of arteriovenous aneurisms and of pulsating haematomas of recent origin, resulting from arteriovenous or arterial injury. For, while a few cases of that character have been reported, in which arterial and venous suture have been successful, the anatomical and operative conditions are radically different from those found in a well developed aneurismal tumor.

The underlying principle of the operation consists of the fact that the sac walls essentially represent the continuation of the arterial coats, with the exception of the absence of the media, with its elastic elements. The lining of the sac being a continuation of the intima of the artery and an analogue of serous membrane elsewhere in its reparation and regeneration, it can be treated, from a surgical standpoint, the same as the peritoneum, pleura, etc., and is capable of yielding the same plastic results.

Temporary haemostasis is obtained by an Esmarch bandage, a silk loop, direct pressure or protected forceps applied on the cardiac side or both sides of the tumor if the collateral circulation requires it. The sac is exposed and opened freely from one extremity to the other and the contents evacuated. The edges are retracted and the interior is carefully inspected for openings into the parent artery and into collateral arteries; the latter are carefully closed by suture and the interior of the sac is gently scrubbed with gauze, soaked in normal salt solution, to remove adherent laminated blood clots. If the aneurism is of fusiform type no effort is made to preserve the lumen of the parent artery but the orifices are sutured, eight or ten sutures to the inch being sufficient. The suture material may be silk, chromacized catgut or firm kangaroo tendon, though the author prefers chromacized catgut. The best needle is the full curved intestinal but almost any can be used. The needle should penetrate one-sixth to one-fourth of an inch beyond the margin of the orifice, reappear at the margin, dip to the floor of the artery and continue to the opposite margin as at the start. The line of sutures may then continue along the floor of the sac from one orifice to the other, the stitch being essentially the Lembert, either continuous or interrupted.

In the sacciform type, there being but one opening, the lumen of the artery is preserved. The same needle and suture material being used, the needle enters far enough from the margin of the orifice to secure a firm hold, reappears just within the lower edge of the margin and then passes to the opposite margin. Care must be taken that the tightening of the sutures shall not constrict the lumen of the artery or the thread be brought in contact with the blood current and that the approximation is sufficiently good to prevent haemorrhage.

The provisional means used to control haemorrhage at the beginning are now removed and bleeding points controlled.

The skin flaps with the adherent sac wall, which has not been dissected off, are turned into the cavity, after the method of Neuber in closing bone cavities with cutaneoperiosteal flaps, and are retained by relaxation sutures catching the loose sac walls on each side of the median line and brought out through the skin and tied firmly over loose gauze pads. The skin incision is closed with interrupted sutures and the usual dressings applied, a splint being used if the operation is on an extremity.

In abdominal aneurisms the peritoneum is used identically as the skin in surface cases, dispensing with the pads under the relaxation sutures. In deep-seated aneurisms of the extremities or neck a second row of Lembert sutures is used, the excess sac excised, and the edges united by a continuous suture.

He proposes, but has not tried, a method of restoring the channel of large arteries in fusiform aneurisms, with two openings, after the principle of Witzel's method of gastrostomy. A soft rubber catheter is placed on the floor of the sac, the ends inserted into both openings, two lateral folds of the sac are then drawn over the catheter by Lembert sutures, the central sutures not being tied until the catheter is withdrawn and then a second line of sutures are placed over the first.

This method would only be applicable in favorable cases, where the coats of the sac were not diseased or degenerated, but should not be overlooked in large aneurisms of the abdomen or root of the limbs or where there is danger of poor collateral circulation.

His experience consists of four cases, two traumatic and two spontaneous, all of the extremities. From these he draws the following conclusions: The advantages of a radical operation for the cure of aneurisms can be greatly increased and the sphere of application broadened. It is simple and reliable. It is possible to preserve the lumen of the parent artery and so protect the limb from gangrene. The fear that atheroma and degenerative changes will interfere with the repair of the arterial tunics has been exaggerated. The fallacy and danger of the operation of Antyllus is due to the lack of control of the collateral circulation, and if the collaterals are secured, the difficulties of the operation are increased and the vitality of the limb endangered; whereas, if the sac is packed and allowed to heal by granulation there is danger of infection and secondary haemorrhage. The objections to extirpation of the sac (Purman's operation) are the technical difficulties, injury to nerves and veins and interference with collateral circulation, entailing a risk of gangrene in distal parts, all of which dangers are reduced to a minimum or eliminated by obliterating the sac in the manner described.

HEG.

DIAGNOSTIC VALUE OF ABDOMINAL RIGIDITY. (Joseph A. Blake, M. D., New York Medical Journal, Jan. 3, 1903.)

The value of any sign or symptom in abdominal cases depends upon its incidence. Pain is a most valuable symptom and abdominal rigidity a most valuable sign. They are the cardinal subjective and objective signs.

Abdominal rigidity is a reflex, spasmodic contraction of the muscular abdominal walls to protect the peritoneum, restrain the movements of the viscera and produce rest. It varies in degree and extent with that of the lesion. It is caused by irritation as well as inflammation, and so is present in intraperitoneal haemorrhage and extravasation of urine and in pyogenic forms of peritonitis, being usually absent in the chronic forms. The variation of the extent of rigidity with the amount of peritoneal surface implicated is due to segmental innervation of the abdominal walls and is of importance in determining the extent of a process and whether it is extending or quiescent. In abdominal haemorrhage rigidity is well marked and occurs at once. He cites three cases where the diagnosis was largely determined by the early rigidity.

In rupture or perforation of the hollow viscera, with escape of contents, rigidity is present before inflammation occurs, though the latter ensues so rapidly it is difficult to demonstrate. He reports several cases, however, where an operation was done before evidence of peritonitis was apparent, the rigidity being marked in all. Rigidity is a more valuable sign in typhoid perforation than pain and its absence in supposed typhoid perforation is a contraindication to operation.

In appendicitis it is absent in the catarrhal forms, but appears when the inflammation reaches the peritoneum, and marked, extending abdominal rigidity, appearing early, denotes danger and often rupture.

When an abscess becomes walled off the rigidity diminishes in extent and finally disappears, and in secondary abscess it is, as a rule, absent. Rigidity of the upper part of the abdomen is present in abscess of the liver and cholecystitis, when the process reaches the peritoneum, and may be present in suppuration of the kidney, a case of which he reports. In obstruction of the bowels abdominal rigidity is absent unless there is peritonitis from ulceration or gangrene. Rigidity of the upper portion of the abdomen, and also abdominal pain, is often present in inflammations of the lung and pleura, when in the diaphragmatic region, but, owing to the muscular attachments and the support of the solid viscera, it is often difficult to be certain a true rigidity exists and great care must be exercised.

He concludes that abdominal rigidity is always present in peritoneal irritation and inflammation, except in the chronic cases, and is an index to the extent, severity and progression of the lesion and is more reliable than pain in supposed intestinal perforation. HEG.

SUPPURATIVE PHLEBITIS. (Dr. W. F. McCabe, Beliot, Wis., The Railway Surgeon, February, 1903.)

The author classifies this disease according to its etiology, as follows, viz.:

1. Traumatic, due to some external injury.
2. Exhaustive, occurring after acute or chronic diseases.
3. Idiopathic, rheumatic or gouty.
4. Puerperal, which is septic but simply modified by the puerperal state.
5. Suppurative, an infective phlebitis due directly to the introduction into the veins of micro-organisms, following surgical operations, from suppurating wounds, from extension of cellulitis, or from varicose or indolent ulcers.

The initial phenomenon of phlebitis is a change in the walls of the vessels. Microscopically we find an invasion of the adventitia with round cells, and actual foci of suppuration are not uncommon. This cellular infiltration may extend to the media and sometimes to the intima. The infective organisms attach themselves to the injured epithelium, and an endophlebitis results. This is more liable to develop in the region of the valves, because the blood flows less rapidly at these points. Thus micro-organisms find lodgment more easily, and by the deposit of corpuscles we get thrombi, which become infected, and the particles are carried along the veins as emboli until they may again be stopped by other valves and the same ccurrence is reproduced. These thrombi terminate in recovery, periphlebitis, hleboliths or general pyemia.

The treatment recommended is rest in bed, with a nutritious diet, and general onics, paying strict attention to elimination. The affected extremity is elevated nd covered with a warm, moist, antiseptic dressing, enveloped in rubber tissue and otton. Unguentum Crede is applied to the nodules which have not become soft. ll fluctuating nodules are opened and curetted, and drained by packing with odoform gauze. They usually heal very rapidly under this method.

Eagleson.

Management of Cleft Palate Cases. (Dr. Harry M. Sherman, San Francisco, alifornia State Journal of Medicine, December, 1902.)

In this paper the author emphasizes particularly the care of the case before nd after the operation. Before the operation he insists on the child being taken rom the care of the parents and put in charge of a trained nurse, who must be specially adapted to managing children. The child is taught to open the mouth widely and submit readily to manipulations necessary in spraying and swabbing the throat. The nurse begins with some bland solution—normal saline—until the child becomes accustomed to the use of spray in mouth, fauces and nose. The tonsils and edges of cleft in palate are swabbed with the same. Adenoids in the pharyngeal vault are thoroughly cleaned out. All bad teeth are put in good order. In some cases a month, more or less, is occupied in order to bring the child to the operating table with a clean nose, mouth and pharynx, and with no fear of manipulations about the mouth or throat. This he believes to be a great desideratum in the after treatment.

Since the wound must necessarily be exposed to infections from both the nose and mouth, asepsis is impossible. He has been trying to discover some antiseptic that would prove efficient and yet not be irritating to the nasal mucous membrane. He has learned to put most reliance in Dobell's solution, full strength, used in the nose every two hours, night and day, for the first few days. On the buccal surface he uses either a spray of 1 per cent. of chloral, or the line of the suture is touched with a 2 per cent. solution of salicylic acid in alcohol, two or three times daily. The secretions must be kept down to a minimum and the child kept quiet, these two objects being accomplished by the combined use of atropine and morphine as required. In order to prevent the pressure of the tongue against the palate the child must be fed per rectum. This method of feeding also aids in keeping the mouth clean. His excellent reports show that his careful attention to the details of management add very materially to his success in this difficult operation.

Eagleson.

OPTHALMOLOGY, LARYNGOLOGY AND OTOLOGY.

Edited by

A. B. Kibbe, M. D.

The Extraction of Cataract by the Simple Method. (Dr. Herman Knapp, Archiv. Opth., May, 1902.)

He stated that the section should, in his opinion, comprise very nearly half the circumference of the cornea at the junction of the opaque and transparent margins. The section which has given him the best results is that which does nowhere deviate from this curved line, and is parallel to the plane of the iris. Often has he caught himself on an irregular deviation near the puncture of the temporal side. The reason of it was that he introduced the point of the knife parallel to the plane of the iris, from the beginning, and, probably by an unconscious intention, passed it too long between the lamellae of the cornea. This had the double consequence of making the section irregular, and what is worse, shorter than it was designed. This fault is avoided when the tip of the knife during the puncture is directed somewhat in and backward, until the lustre of the tip shows that the latter is in the eye. This is an old rule, but having failed a number of times, he mentioned it. The knife, when the point is in the anterior chamber, is pushed forward somewhat rapidly, until the counter puncture is made on the level of the puncture and exactly at the line of separation of the opaque and transparent cornea. If this is not obtained, the knife is drawn a little backward, and put in the right direction. To do this, one must have a good knife, the point of which should not be flexible, so as to bend when, during its passage through the cornea, it meets with too great a resistance, and produces a crooked and bruised wound canal.

If the section is too small—the most disastrous of all mistakes, as is wel known—it manifests itself when the cataract presents in the gap but does not advance; the hard lens pushes its way half into the section, the flap tilts insufficiently, showing that the opening is too small for the lens to pass through. The remedy is easy: Take strong strabismus scissors, the tips of whose branches are well held together and their edges sharp, so that they enlarge one, or, if necessary, both angles of the section without bruising the cornea.

The stoppage of the lens may have another cause: the capsule is not opened One may recognize the fact when by a sufficient section the pressure pushes the lens toward the gap but its edge will not present, and when with a small hook the iris is drawn back the lens will not tilt. A straight sharp cystotome passed across the upper part of the pupil will at once release the tension and allow the cataract to pass out of the eye.

The opening of the capsule: For many years he has opened the capsule unde the upper part of the iris more or less parallel to the corneal section. He thinks it was Professor Gayet, of Lyons, France, who practiced this section first methodically; Dr. E. Gruening practiced it in Morgagnian cataract. and Dr. Knapp in all cases. It is one of the features in his operating to which he ascribes a specia importance, having seen that in promiscuous openings of the capsule there were posterior synechiæ just and only at the points where shreds of lacerated capsule touch the notches in the iris at its pupillary edge. To avoid the agglutination o two raw surfaces, he passes the point of the cystotome behind the upper part o the iris, turns it on it's longitudinal axis, and opens the capsule from the nasa side of the iris to the temporal.

In this way the notched iris cannot come in contact with torn shreds of capsule. Synechiæ, after so operating, are very rare, and when they occur, it is a most always at the edges of the capsular scar, which did not lie high enough u to be out of the reach of the lacerated edge of the iris.

The opening of the capsule is very important. When the point of the cystotome is not sharp enough, or when we press too much on the lens, it is apt to b dislocated, and escape of vitreous may occur during the operation, or prolapse the iris during the first night. It is just as easy to evacuate the cataract completely through this peripheric section as through a promiscuous opening in the centre. The capsule will wrinkle in the course of some months, and this, no sooner than all the symptoms of irritation are passed, is the time to clear the pupil by a discission through the cornea, which in most eyes gives an ideal result; both as to sight and endurance for work.

The expulsion of the lens is usually done by pressure with the curved surface of a spoon. In some cases, particularly in dislocated cataracts, it is advisable to expel the lens by external pressure with the fingers, using the margins of the lids as the intermediary part. Judicious pressure not rarely expels in this way chalky cataracts floating in the vitreous. The expulsion of remnants is effected in the same way.

The bandaging is done in the old way by occluding the operated eye with sterilized gauze and cotton. The other eye may be covered during the first night, then shaded with a blinder of gauze, so that the patient can look with that eye from time to time, but he should not move the eye much.

The open treatment of Schioetz has decided advantages, but he would not use it in nervous or restless patients.

The different protectors are, in his experience, more or less unpleasant without always warding off accidents. He continues the handcuffs, and gives every cataract patient a special nurse for the first nights. KIBBE.

THE TREATMENT OF CORNEAL INFILTRATION BY IODIN-VASOGEN. (Dr. Alexander Duane, Archiv. Opth., Sept., 1902.)

Duane gives his experience with iodin-vasogen, a non-irritating, syrupy, brownish liquid, containing 5 or 10 per cent. of iodin in 19 cases, among whch were 15 ulcerative cases; two of pannus with ulceration, one case of pannus (no special good effect being noticed in these 3), and in one case of intese parenchymatous infiltration of the cornea with minus tension; in all of these with the exception of the three mentioned, a good result was obtained. It is applied with a cotton-tipped probe, the tears being first mopped away; the reaction is very slight, rarely causing pain of any moment. He includes that:

(a) Iodin-vasogen is a valuable application in infiltrated and spreading ulcers of the cornea, whether associated with purulent conjunctival secretion or not. It is particularly indicated in those cases in which the galvano-cautery is contra-indicated by the situation of the infiltrate.

(b) It rarely causes pain, if not applied in excess, and never causes any unpleasant reaction or untoward effects.

(c) Preliminary anesthetization of the cornea with cocain is rarely required, and in general is better omitted.

(d) The application is best made every other day, until the infiltrate begins to shrink decidedly, and then should be made every three or four days until the infiltrate disappears. KIBBE.

BOOK REVIEWS.

Edited by
Kenelm Winslow, M. D.

The Treatment of Tabetic Ataxia by Systematic Exercises. (Dr. H. S. Frenkel. English edition translated and edited by L. Freyberger, M. D. P. Blakiston Sons & Co. 6¾x10¼ inches, 185 pp. Price $3.00.)

Dr. Frenkel's method is the most successful special means of treating the prominent symptom of this disorder. We can indeed go farther and safely affirm that it is the only special form of treatment which has proved of any value whatever in locomotor ataxia. His methods were first brought to the attention of the profession in 1889 and have received the approbation which they deserve from leading medical men all over the world. This book is not a literal translation of Frenkel, however, but an adaptation of the original work to suit the needs of the general profession. While ideal treatment by Frenkel's method should be carried out in a sanatorium, yet by following the descriptions and illustrations, in which the book abounds, it will be found practicable for the general medical man to treat patients satisfactorily at their homes, as the appliances are exceedingly simple. The first half of the book is devoted to a theoretic exposition of the cause of ataxia. Frenkel explains that ataxia is due to lack of sensibility in the skin, joints and muscles and to "hypotonia" of the muscles, that is, an abolition of power to check other muscular movements. The patients are thus enabled to hyperextend and flex their limbs so that the lower limb, with extended knee, can be flexed in the hip joint until the thighs touch the abdomen. The joints normally being kept firmly in situ by the muscles, become wobbly in ataxia, so that a flail-like motion of the ankle occurs and sprain is not infrequent. Hypotonia is not remedied by Frenkel's exercises, and is not usually severe enough to interfere either with movements or with the exercises, and, if it is, supporting appliances will be required. Ataxia not infrequently occurs when there is no lack of sensibility in the skin demonstrable (the test should be made with the warm finger tip, and not by pin pricks), but there is invariably loss of sensibility in the joints according to Frenkel, so that it is impossible for a patient with closed eyes to tell in what position his limbs are placed when passive movements are properly made. If articular sensibility is normal in the larger joints, it will be invariably found wanting in some of the smaller joints. Thus in a patient of the editor's there is moderate ataxia and no demonstrable loss of skin sensibility; neither are the larger joints wanting in sensation, but it is impossible for the patient to describe the position occupied by his toe joints when passive motion is practiced while he is blindfolded.

Frenkel attributes the ataxia of tabes entirely to loss of sensibility in the skin, joints and muscles. The lack of sensation in these parts or absence of local reports to inform the brain of the situation in the limbs accounts completely for the ataxia and even paralysis of tabes,—from his point of view. When movements can be made under the constant supervision of the eyes, the result is more satisfactory, but when the eyes are closed, movements or even standing,—a complicated feat of co-ordination—become impossible, as is seen in Rhomberg's sign. From not knowing in what position the limbs are placed, patients soon forget the proper sequence of movements in order to execute simple acts, as for instance, they forget to draw back their legs under them before attempting to rise from a chair. Frenkel's treatment for ataxia is a development of the idea that by constant repetition of movements the central nervous system may be enabled to differentiate stimuli of minute intensity. That is, although the quantity of sensational stimuli coming from the muscles and joints may be small, yet by constantly repeating a movement the sensibility of the nervous system becomes so great that slight stimuli act on it with the same force as rarer but stronger impressions. The teaching of tabetics, ordinary movements, is thus comparable with the acquirement by normal persons of the most complicated movements—as violin playing—which require the differentiation of tactile impressions of minute strength. So wonderful an improvement is sometimes seen from Frenkel's exercises that a patient who is unable to stand may, after several months of faithful treatment, be able to walk down stairs backward unassisted. Yet the victim of such severe ataxia will directly fall down when his eyes are closed. It is impossible to even outline the exercises which are done in the recumbent, sitting or standing position. As this is the only method at our command for treating the ataxia of tabes the importance of Frenkel's work cannot be ignored. The patient and intelligent industry which this man has devoted to curing a single symptom of a single disease cannot fail to call forth our profound admiration and wonder as we read this volume of 185 large pages. The translation is remarkably clear and good, which fact is only accentuated by the following excerpt to be found on page 49, "the spinal column looked like kinked." This is the only *lapsus styli* we have noted in reading the whole book. Any doctor having to treat a case of locomotor ataxia does not do his whole duty to his patient until he has consulted Frenkel's work. The contraindications to his exercises are: Loss of vision, mental impairment, bone and joint disease, muscle atrophy, exhaustion, organic disease and marked irritative symptoms. WINSLOW.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. (Part 1. Obesity—the Indications for Reduction Cures, by Prof. Carl von Noorden. Translated under the direction of Boardmen Reed, M. D.; pp. 59 8½x5½ inches. Price 50 cents. E. B. Treat & Co., N. Y.)

This little monograph is limited strictly to the indications for reducing obesity and does not treat of the means of accomplishing the task. The fact that a reduction cure is not weakening, if properly carried out, is affirmed and that short courses at a sanatarium are advisable. The dangers of reduction of fat, especially if rapid, in the moderately obese are pointed out, as hernia, gastroptosis, dislocation of the kidneys from removal of the intra-abdominal fat. Even gall stone colic following compression of the abdomen by skirt bands may occur from the same cause. The value of fat-reduction is emphasized in heart lesions and circulatory disturbances, as arteriosclerosis and obstruction in the pulmonary capillaries, as in bronchitis in lessening the work of the heart. In respiratory disorders the diminution of intrathoracic fat gives an opportunity for freer respiratory excursions and so is beneficial in chronic bronchitis. Recovery from joint rheumatism and other chronic arthritic troubles is greatly favored by overcoming obesity in these patients and so relieving the joints of work and weight.

The victims of atrophic nephritis need reduction of fat as much as those suffering from circulatory weakness because the condition of the heart in these persons is the essential feature in regard to their future. So in the so-called gouty heart which is associated with contracted kidney and arterio-sclerosis, the necessity of fat-reduction is of paramount importance. The desirability of overcoming obesity in certain nervous disorders, in diabetes under some circumstances, and in lung tuberculosis is also noticed. The subject is presented in the same virile and original manner that we find in the other writings of this eminent man.

WINSLOW.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. (Part II. Nephritis; by Prof. Dr. Carl von Noorden. Translated under the direction of Boardman Reed, M. D. E. B. Treat & Co., publishers. pp. 112, 5⅝x8⅝ inches.)

This is a treatise on acute nephritis and contracted kidney by an author noted for his original, clinical and experimental researches in problems concerned with faulty metabolism. His views based on these are bold, novel and frequently seem conclusive. The general line of treatment for the two disorders under consideration is founded on the principle of saving the kidneys as far as possible. Certain substances have been proved experimentally to be eliminated with difficulty by the diseased kidney as urea, creatin, hippuric acid, etc., but most important—water. It is thus our duty to exclude from the dietary articles of food containing these bodies—as far as circumstances permit. For example, creatin may be avoided by not allowing meat extracts or broths; hippuric acid by cutting out green vegetables and some fruits and these articles of food are not permissible in acute nephritis. Although a milk diet is the rule in the latter disorder, yet it unfortunately causes an especially abundant urea-formation, and therefore milk should be limited in amount to a much greater extent than is the general practice. In severe cases of acute nephritis only a pint of milk is permitted daily for the first three to five days, thirst being allayed by lumps of ice, which may be held in the patient's mouth. In contracted kidney also the greatest benefit has been derived by diminishing the ingestion of water, particularly when dyspnoea and cardiac weakness are prominent, as these are often brought about by overfilling of the vascular system. Patients in the earlier and later stages of contracted kidney should be restricted to 2½ pints of liquid daily, ignoring that contained in the solid food, usually amounting to a pint. This treatment is not contraindicated even if the disease be associated with gout. In lithiasis, however, an occasional "drinking day" is allowable, or even a "drinking week." Prof. von Noorden, as is known, has exploded the fallacy that dark meat is more harmful than light in renal troubles, and the explosion, unlike others, has done nothing but good. He prefers a general diet for the treatment of contracted kidney, but restricted as regards protein and liquid content. Proteid-nutrients may be allowed to the extent of 2 eggs, 3 glasses of milk and 10 ounces of meat (weighed raw) per diem in addition to that which may be contained in the vegetable portion of the dietary—including bread. The common error of giving too much prognostic import to the quantity of albumen found in the urine from contracted kidney at any one time, is emphasized, since frequent flucutations are the rule. The book is the product of a master worker and deserves perusal by all general practitioners who wish to keep abreast of the times in the treatment of these common disorders.

WINSLOW.

MEDICAL SOCIETIES.

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Southern Idaho District Society President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.	April 9—Boise
British Columbia Medical Association President, O. M. Jones, M. D.: Secretary, C. J. Fagan, M. D.	

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NORTHWEST MEDICINE

April, 1903.

ORIGINAL CONTRIBUTIONS.

MALIGNANT DISEASE OF THE COMMON BILE DUCT.

By William J. Mayo, A. M., M. D.
Surgeon to St. Mary's Hospital, Rochester, Minn.

Primary carcinoma of the common duct is rare. Kelynack in 4578 autopsies found eight cases of primary cancer of the gall bladder and but two having origin in the duct. Musser collected 100 cases of carcinoma of the gall bladder and 18 of the bile ducts. The site of the neoplasm in the common duct is usually either at the junction of the hepatic and cystic ducts or near its duodenal termination. The 18 cases collected by Musser showed three in the hepatic duct and 14 in the common duct, and of these latter, nine were at or near the papilla. Rolleston in 17 cases of cancer of the ducts, found 15 in the common duct, and of these 10 at or near the papilla. In 511 operations upon the gall bladder and bile passages performed in St. Mary's hospital, Rochester, Minn., up to March 21, 1903, 22 were for malignant disease, and of this number it was thought that six began in the ducts. In several cases the exploration did not develop the exact site of origin.

As to the etiology of carcinoma of the common duct, there is some question. It must be conceded that gall stones are the most common cause of cancer of the gall bladder. In Musser's 100 cases of gall bladder carcinoma, 69 contained gall stones and good evidence that calculi had at one time been present in the majority of the remainder. Primary cancer of the gall bladder and gall stone disease are more common in females than in males, and in about the same proportion. This is not true of duct carcinoma. Malignant disease of the common duct is equally frequent in the male and female, which does not favor the theory that gallstones are the cause of the malignant process in the duct.

Edes, in 22 collected cases of cancer at or near the papilla of the common duct, found gall stones in but four, and three of these in the gall bladder. Rolleston, in 36 cases of cancer of the common duct found gall stones in less than half. The extensive experience of Mayo Robson, however, entitles his opinion to great weight, and he states his belief that gall stones are the most common cause of malignant neoplasms in the biliary passages, although the calculi have not remained in situ.

The histological variety of carcinoma of the ducts is always of the columnar cell type, although Robson says that secondary degeneration of papillomata occurs. Systemic infection is rare, the growth usually progresses by contiguity and sooner or later the lymph glands of the gastro-hepatic omentum are involved. In some of the cases reported, the growth was very small at autopsy, notably the case reported by Edes, in which it was not larger than a bean, even after a year or more of marked symptoms. Death usually occurs from debility, the result of the jaundice and infection of the biliary ducts. The symptoms are not distinctive and the diagnosis can not often be made. The chronic jaundice and cachexia are not dissimilar to malignant growths of the head of the pancreas, and the occurrence of glycosuria and fatty stools is not sufficiently common in the latter disease to aid differentiation.

In primary carcinoma of the common duct, pain is not usually severe, in this respect differing from stones in the same situation; but as so many cases have at one time had stones, the diagnostic importance of the pain symptom is not great. There is usually no tumor present, although, not infrequently, the distended gall bladder can be palpated below the margin of the liver, but not the distinct hard tumor of cancer of the gall bladder. The question of jaundice is an important one. In the beginning it is often intermittent, very like stone in the common duct. Rarely this will lead to an infection with the fever and chills of cholangeitis. In the later stages, jaundice is complete. Maury reports a recent case with the typical symptoms of Hanot and Rendu, early intermittent jaundice, insidious onset and diarrhoea with, later, complete obstruction of the common duct. An exploration of the ducts in doubtful cases is the only way a positive diagnosis can be established.

McBurney first called attention to the ease with which the duodenum could be opened for the purpose of removing stones impacted in the diverticulum of Vater, and first performed the operation. We have several times sucessfully opened the duodenum for this purpose and a large number of such operations are now on record. Carle in an address before the Italian Surgical Congress, strongly urges incision of the duodenum for removal of stones or growths from the duodenal end of the common duct, and cites cases in which stones were formed in the duct and later might give rise to carcinoma. Cancer higher up in the duct would necessitate union between the remaining fragment of the duct and the duodenum, as Halsted succeeded in doing in his case. As a palliation, cholecystenterostomy is the indicated procedure. The anastomosis may be made either between the gall bladder and duodenum, or, if the latter is involved, with the transverse colon or jejunum. We have five times joined the gall badder to the transverse colon for inoperable obstruction of the common duct or chronic pancreatitis, and these cases did fully as well in every respect as five cases in which the duodenum was used as a receptacle for the biliary discharge. One case, supposed to be malignant, proved not to be so by living in good health six years after uniting the gall bladder and colon. As a result of our own experience, I see no reason why the transverse colon may not serve as well as the duodenum, provided the latter, more favorable situation, is not practicable. The proximity of the large bowel and the nature of its coats render anastomosis with the gall bladder easy and in palliation of malignant disease, it is, perhaps, almost as good for the purpose, as the duodenum. In the original work of Winiwarter, it was the chosen method. A few cases of enormous distention of the common duct have been reported. Robson details an instance in which he had been able to suture such a cystic formation to the surface of the body. Summers, in a most interesting case, united the common duct to the duodenum with a successful result. In these cases the obstruction was, however, non-malignant. The following case came under our observation:

Carcinoma, Ampulla of Vater. Excision. Recovery. Followed by Recurrence and Cholecyst-duodenostomy—M. K., female, age 59, German. Admitted to St. Mary's Hospital, Rochester, Minnesota, Nov. 1st, 1900. *History*: For many years patient has suffered from sudden attacks of pain arising in the epigastric and extending to the right hypochondriac region. The suffering has been very severe, lasting from two to six hours, and ending with an attack of vomiting accompanied by prostration. At times has been somewhat jaundiced after these attacks. About one year ago appetite began to fail, distress in the stomach became more constant but less severe, and there has been a progressive loss of weight, over 40 pounds in all. Family and personal history good. *Examination*: Patient somewhat emaciated, there is a marked cachexia with a moderate jaundice. Pulse, temperature and respiration normal. Liver can be outlined just below the free margin of the ribs, gall bladder cannot be felt. There is tenderness and some rigidity of the muscles in this region, otherwise examination negative. Urine has a trace of albumen and much bile. Test meal developed free hydrochloric acid and on distention with air, the outlines of the stomach were found to be normal. Stools contained traces of bile, but were light colored. The history was clear as to the presence of gall stones, but the patient had a distinctly cachectic look. *Diagnosis*: Either gall stones in the common duct or malignant disease.

November 3rd—Incision through the right rectus muscle. Liver somewhat larger than normal, gall bladder enlarged, containing bile mixed with ropey mucus and a single non-faceted dark colored stone, the size and shape of a small pea. The cystic and common ducts were moderately dilated, but no stone nor other obstruction could be detected on most careful exploration. Gall bladder drained to the surface after attaching to the parietal peritoneum. The findings at the operation were unsatisfactory, and did not account for the condition of the patient. For forty-eight hours, drainage of bile was free, but gradually increased in quantity up to two or more pints a day, the skin became greatly irritated from the discharge, and examination showed that a large part, if not all, the pancreatic secretion was being discharged, with all of the bile, to the surface. Stools now contained bile. A Jacob's self-retaining female catheter was inserted into the gall bladder through the fistulous opening, and in this way the drainage was directed into a receptacle without contact with the skin. It was evident that there was an obstruction which had been overlooked at the duodenal extremity of the duct.

Patient was in a very feeble condition, and on November 30th was allowed to return home. Even with the continuous drainage, she improved somewhat. The jaundice disappeared, and on January 29th, 1901, was readmitted to the hospital. On January 31st, 1901, an incision four inches in length was made to the inner side of the fistula. The adhesions were separated and the common duct and duodenum thoroughly exposed. At the extreme end of the common duct a hard body could be felt through the wall of the duodenum, the size of a filbert, and was supposed to be a stone lodged in the ampulla of Vater. An incision was made two inches in length in the anterior wall of the duodenum, exposing a grayish white mass which was strictly localized to the site of the papilla of the common duct. Its size did not exceed the end phalanx of the forefinger. About one-third of its length projected into the free lumen of the duodenum and two-thirds posterior to the intestinal wall. The tumor was excised, exposing the free end of the common duct. The removal was made partly with a knife and partly with the Paequelin cautery, and finally the whole raw surface was seared with the cautery. The common duct was otherwise free from obstruction. The incision in the duodenum was sutured. No enlarged lymphatics could be detected. A small drainage wick was inserted and the wound closed. The attachment of the gall bladder to the skin was left undisturbed. The discharge from the fistula rapidly diminished, and in three weeks had completely ceased. Stools became normal in color and the gain in the weight and general appearance was most rapid. For nearly a year and a half the patient remained well. About the middle of June, 1902, she began to notice some pain of a boring character in the epigastrium which was soon followed by jaundice which slowly progressed, and on July 7th the abdomen was opened in the region of the former incisions. Gall bladder found distended. On opening the duodenum it was discovered that the growth had returned at the site of former operation. Enlarged lymphatics were present and also deep attachments to the pancreas. Cholecyst-duodenostomy was performed with the Murphy button, with recovery.

The specimen was examined by Dr. Le Count, assistant professor of Pathology, Rush Medical College, of Chicago, and his report is as follows:

"The tissue is from the duodenal wall, and some sections show portions of Brunner's glands. The Lieberkuhn's glands may be traced to lower depths than normal through a very inflammatory mucosa that contains a few small lymph nodes and small areas of haemorrhage. Certain of these glands are directly continuous with groups of epithelial cells that lie deeply within the mucosa and the muscular coats. The epithelium in these invasions are altered as follows; they lose their columnar shape, become possessed of larger and more deeply stained nuclei, possess karyokinetic nuclei in many instances and do not retain their characteristic grouping, being instead, arranged in disorderly clumps and bunches that vary in size; these deeply lying collections of epithelial cells always possess an irregular cavity that simulates a gland of the simple tubular type or a gland duct. One must conclude that this is the tissue from a cylindro-cellular carcinoma."

So far as the writer can ascertain, the only case in which a carcinoma of the common duct has been excised previously to the one herewith reported was that of Wm. S. Halsted, of Baltimore, published in the Boston Medical and Surgical Journal. Vol. CXLI., Dec. 28th, 1899, No. 26, p. 645. A few cases have been since reported, but the total number is small.

ACUTE ARTICULAR RHEUMATISM.*

By H. M. READ, M. D.

SEATTLE, WASH.

A brief discussion of this time-honored malady, that has so successfully resisted the efforts of clinicians, aided by pathological and bacteriological investigators, to determine definitely the cause, may help to move some or all of us to a more careful analysis of our cases, and perhaps a more careful search for the primary etiological factor. Discussions and papers regarding the bacterial causes are constantly appearing.

Some of the best investigators at home and abroad, from time to time come forward with the announcement of a specific micro-organism discovered, and each in turn is not confirmed, and so the primary cause of acute articular rheumatism is still unsolved. It is an accepted fact that climate is the most common predisposing cause, and those most exposed to the inclemencies of temperate climates are the ones most frequently afflicted, and the rapidly changing temperatures of fall and spring, or continued dampness of such climates, produce the largest number of cases, and the farther we go towards the tropics the less is found. Males are the victims more frequently than females, simply because they are more exposed to temperature changes.

I cannot find much or any tangible proof, aside from related clinical observation with no positive data, that it is hereditary, and when found in children of parents who were rheumatic, it seems more liable to be coincidence than heredity. It should be, and now generally is looked upon as an acute infection. The violence of onset, the acute local inflammatory manifestations, the tendency to relapse, the presence in nearly every acute case of a leucocytosis in which the polymorphonuclear cells are increased, and the rapid destruction of the hæmoglobin and red cells, all go to make the picture of an acute infection. The specific micro-organism has not been positively identified. Birch-Hirshfield[1] and others reported in 1894 to have repeatedly obtained staphylococci, and now and then streptococci from the synovial fluid, articulations and heart valves in acute and subacute cases.

Tonsilitis is cited as a primary cause of the infection, and while it is frequently associated as a prodromal symptom and a complication in the disease, it can hardly be a cause direct, for we all have seen cases with no sore throat. Singer[2] in 1897 reported ninety-two cases examined and in a great majority of these he was able to demonstrate staphylococcus and streptococcus, and claims these organisms as the cause. No confirmation of Singer's investigation has ever been made.

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*Read before the King County Medical Society March 16, 1903.

Achalme[3] has recently been able to isolate a bacillus from the blood in acute cases, a culture of which, when injected into the ear veins of rabbits, produced a polyarthritis, endocarditis and myocarditis, and he was able to recover the bacilli from the heart valves and myocardium of rabbits so injected. This is the best and most recent work done, but still awaits confirmation.

No one can consistently adhere to the lactic acid theory of Prout, Richardson and others, or the nervous theory of Mitchell. It is undoubtedly true that the staphylococci and streptococci found by various investigators, were the result of mixed infections.

The pathology of the disease is in the joint, and shows a round cell infiltration and thickening of the synovial sack and connective tissues about the joint; the fluid in the joint is turbid but always sterile. The blood elements are rapidly disorganized. The pathology of the various complications I will not review.

No distinct or characteristic prodromal symptoms are encountered unless the recent teachings of Achalme prove of permanent value. As you all know, many cases are preceded by a slight fever with or without chills, and often accompanied by a sore throat. In this group of cases the observations of Achalme[4] are well worth noting and may prove of much value; for, as he remarks, the earlier the disease is recognized, the more efficacious seems to be the salicylate treatment. Achalme also remarks that it would be of the utmost importance if the diagnosis could be made in the prearticular stage, for thereby the intensity of the infection could be much lessened and the danger of organic heart lesions obviated. He remarks the difficulty of such an early diagnosis, because the patient is seldom seen until after the appearance of the joint symptoms. After remarking upon the uncertainty of prodromal symptoms in rheumatism, he says that clinical observation has taught him a fairly constant cardiac symptom that precedes the joint symptoms; this symptom is a cardiac arrhythmia, and may precede the joint symptoms four or five days; the pulse becomes irregular in force, and more particularly in rhythm. The beats occur in groups of two, three or four; the heart's action is slowed to between fifty and sixty; the heart seldom shows any evidence of valvular disease at this stage. in first attacks. This same arrhythmia also precedes the onset of relapses, in articular rheumatism, by four or five days. He believes the irregularity due to some disturbance of the nervous mechanism of the heart by some toxic substance or to some lesion of the myocardium from the local infection with some organism, the latter he believes to be correct, as he was able to produce this arrhythmia in 60 per cent of rabbits injected in their ear veins with 2 c. c. of a culture of the bacilli which he had isolated from the blood of patients having the disease. The arrhythmia developed in six to twelve hours after the injection and before the appearance of any other symptom. In young rabbits killed by the injection he was able to find the micro-organism referred to, in the myocardium, in clumps. The injections produced sterile effusions tinged with hæmoglobin. I trust to be pardoned for reviewing here at length what you have already read. So in those cases which we see early, with fever or sore throat. and having this very interesting cardiac arrhythmia, the immediate use of salicylates in large doses is justifiable, even in the absence of joint symptoms.

The joint symptoms appear early, and it is unnecessary to describe them, still it may not be acute articular rheumatism in spite of the very characteristic looking joint. Usually more than one joint is involved and the diagnosis may be comparatively easy; however, monarticular rheumatism is by no means rare; perhaps all of us have seen cases. Heldenheim reports thirty-eight cases of monarticular rheumatism out of fifty-one cases observed in the polyclinic at Griefswald. In the monarticular cases the error is usually made.

The complications comprise the serious features of the disease. Endocarditis occurs in more than half the cases and the percentage increases with each subsequent attack. Very fortunately, ulcerative endocarditis rarely occurs in this disease. The acute endocarditis is not in itself serious, but may lead to a puckering of the valves, and this produces a permanent lesion. Myocarditis is the serious and suddenly fatal complication. Meningitis is rare, but delirium, insomnia and convulsions are not uncommon and due usually to prolonged high temperature and sometimes to large doses of salicylates. Pleurisies are not uncommon, while lung complications are rare.

If our case of acute joint inflammation is not articular rheumatism, what is it liable to be? Monarticular rheumatism is not uncommon. and also other polyarticular and monarticular diseases are not uncommon, and a mistake that may jar our complacency is not hard to make, if we neglect any of the more important clinical methods.

Sir Dyce Duckworth[5] says that no diagnosis except "malaria" has been so much abused as rheumatism. When we know that the diagnosis of acute joint diseases is in the effusion and can be readily solved by a proper bacteriological culture, we can hardly be excused in error of diagnosis in acute joint disease. The synovial fluid of uncomplicated rheumatism is always sterile, and when it ceases to be sterile it is no longer articular rheumatism. Whenever any doubt exists as to the nature of the joint disease, a culture should be made.

As a direct result of the joint manifestations, acute articular rheumatism is rarely fatal, but the ultimate results of the heart complications are far-reaching in their effects upon the life or health of the individual and the prognosis should be guarded.

There are not many methods of drug treatment up to the present time that are worth much discussion. Early and complete rest and quiet in bed, between woolen blankets, and in a woolen nightshirt if possible, in a room of even temperature of seventy-five degrees, and well ventilated, is of the utmost importance.

Of equal importance is the diet which, as in all acute infectious troubles, should be liquid, preferably milk, and abundant. Water, especially lemonade and carbonated waters, very freely. The inflamed joints should be absolutely protected from the air at all hazards, and I have personally found what I believe to be a degree of prevention, in giving the same protection to the joints which have not, but may become affected.

Of drugs, only one group seems worth consideration, and there is no evidence that they shorten the course of the disease. Salicylates, preferably of soda, do undoubtedly, when given in full doses, early in the course of the acute attack or relapse, control the pain better than any other drug; they also seem to lessen the heart complications; they seem to have little effect on the temperature, for any other drug which will control the pain will cause as much drop in the temperature, and some, like some of the coal tar products, will cause more. Achalme, and the French generally, have great faith in the curative effects of salicylates when used early, and in my experience, cases so treated seemed less liable to have heart complications, but did not get well of the acute symptoms any earlier than when treated by other drugs or practically no drugs excepting opiates for pain. Given in the declining stage, I believe salicylates do little or no good, and may, in this stage more than in the acute, produce much unrest, insomnia or even delirium. Osler advises fifteen to twenty-drop doses of wintergreen oil, when the salicylates are not well tolerated. When the temperature becomes persistently high, joint symptoms are severe, pulse rapid; in fact, in all severe cases, I believe that 500 c. c. normal salt solution under the skin and repeated in eighteen to twenty-four hours, if no better, is often of great value. I have observed its use, and used it with great satisfaction; it does good, as it does in pneumonia or any other severe infection, by "washing out the blood" and stimulating cell activity. Of local remedies, I will only mention three. I have personally observed much relief from pain follow the application of three to five fly blisters, one inch square, around the limb, above and below the joint. The other two are light application of thermo cautery, and immobilizing the joint, both of great value.

I shall not discuss the subacute or chronic forms or stages of this disease or follow the cases through convalescence. Familiarity breeds contempt, and frequent contact with the common diseases makes us often careless of their far-reaching evil effects. We should lend all aid in our power to help clear up the etiology of this great human affliction; when we know the exact cause we may arrive at some effective treatment more promptly.

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THE MEDICAL EXPERT.*

By F. M. Conn, M. D.

SEATTLE, WASH.

It is undoubtedly true that a large proportion of the laity entertain pessimistic views concerning the value of expert medical testimony. However, a moment's consideration must convince all reasonable and thinking men that it is of the utmost importance that juries and other tribunals, charged with the duty of ascertaining the truth in criminal and other cases, should be assisted by the knowledge and opinion of physicians specially trained in these matters of science and skill, with which the ordinary juror and judge are unacquainted. The value, I might say necessity, of medical expert testimony, has been frequently acknowledged by the most celebrated jurists. It is true that there always has been and always will be a difference of opinion among experts of the highest character, rarely, however, in regard to well-established facts, but often in regard to probable inferences from facts, whilst agreement in matters of theory and speculation would be marvelous. Bias or inclination in favor of the party by whom the expert is employed, is probably the most frequent complaint of all against the expert witness; and the inclination or partiality is often characterized by terms indicating dishonesty and corruption. But it is my belief, resulting from the observation and experience of many years, that there are few instances in which a scientific witness permits himself to testify or to be engaged on a side contrary to his convictions, derived from a careful examination of the case beforehand. It is not unnatural that a man of strong convictions should become the earnest advocate of his own theory, and become the zealous assistant of the attorney in preparing, and to some extent aid in conducting, his case in court. The bias of the expert witness may not always be incidental to his profession, but a purely scientific bias, due to some peculiar view or theory. One cause for the severe criticisms to which the medical expert has been subjected by men of the legal profession is that, in many respects, he seems to be a positive annoyance to both lawyer and judge,. being a sort of intractable, incompatible, inharmonious factor, disturbing the otherwise smooth current of legal procedure, too important to be ruled out, too intelligent and disciplined to yield without reason, to the ordinary rules and regulations of the court, with which he is not familiar, and at the same time possessing an undoubted influence with a jury that is difficult to overcome.

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*Read before the King County Medical Society March 2, 1903.

I believe it was a disappointed lawyer who once said there are three kinds of liars—the common liar, the damned liar and the medical expert. Such language is too extravagant and unjust, and would be deplorable indeed if such criticisms were justified by facts, but concerning this alleged misfortune it seems hardly becoming for the legal profession to indulge in any severe criticism, since there is no profession so strongly characterized by differences of opinion on every subject, lawyers as well as judges constantly disagreeing, and the latter frequently overruling each other's decisions. Yet, it is a visible truth that doctors, as well as lawyers and even ministers of the gospel, do disagree. It would be marvelous and deplorable if they did not. If there were no disagreement, investigation and experiment would cease, and science, literature and art would sink to a dead level of stupidity and laziness. If scholars and learned men had come to a condition of unanimous agreement a hundred years ago, we would have none of our marvelous discoveries and inventions, none of the magnificent victories and triumphs in medicine and surgery that have distinguished and illuminated the closing years of the past century.

The fact of a man having a medical education does not necessarily supply proper qualifications for expert testimony in all kinds of cases. A physician may have the best of training, and the highest standing in his profession, and yet be utterly incapable of making a thorough microscopical or chemical examination, or of forming a really competent judgment as to the mental condition of an obscure case of alleged insanity. Clearly, then, to my mind, one should not be permitted to qualify as an expert simply because he has a good professional standing as a physician. In some portions of Europe permanent experts are appointed for certain cases and lines of business. They have no official title nor regular salary, but in the majority of cases they are appointed by the judge sitting in the case. He may appoint any man suggested by both parties or a third man not suggested by either; but if both parties agree on one man, he must be appointed. The only essential qualification of the expert is that he must follow the particular line of business to which the inquiry relates. The number of experts is not limited by law in any case: it rests in the discretion of the presiding judge. The manifest and fatal objections to this method are, the compulsory appointment in certain cases of the permanent expert, the denial of the right of the party to select his own witnesses, and the absence of the qualification of professional learning and ability.

Our legal associates expect too much when they ask us to give only that portion of our views which makes their side of the argument stronger. Medical experts should trust one another; they should seek the privilege of counseling together before appearing in court, for there is a growing tendency to look with distrust upon every form of skilled testimony. Exhibitions of scientific inaccuracy and self-contradiction cannot but weaken the public confidence in the value of all such evidence. If science, for a consideration, can be induced to prove anything which a litigant requires in order to sustain his side of the issue, then is expert testimony open to the charge of venality, and perjury rendered more base coming from the scientific medical expert. Finally the scientific medical expert or witness should come into court with a clean conscience and a pure heart, with a sincerity of purpose, with a tendency and desire to ascertain and recognize the truth wherever it may be found, to conceal nothing, mindful of his oath, which requires him to speak not only the truth, but the whole truth. His testimony should be the colorless light of science brought to bear upon the case in question.

REPORT ON BUBONIC PLAGUE IN CALIFORNIA.

By J. R. Booth, M. D.

SEATTLE, WASH.

[In order to learn the true conditions as to the plague in San Francisco and other California cities, the Seattle Board of Health commissioned Dr. Booth to make a personal investigation, the results of which appear in this report.—Editor.]

Upon my arrival at San Francisco I called upon the local health officers, who rendered me every assistance possible. In the course of my investigations I visited Health Officer Dr. A. O'Brien, who instructed the physician in charge of Chinatown to show me through that district. I paid special attention to the sanitary and hygienic conditions existing there, particularly the buildings where bubonic plague had existed.

Chinatown proper consists of about fourteen city blocks, each block being about half as large again as an average Seattle block, and containing all together about twenty thousand inhabitants, including a few hundred Japanese. This number is much less than in former years, and still the district is congested. The houses are old and will average three stories. The men are in great majority and live in the crudest way, cooking over fires in little iron pots in dirty hallways, sometimes as many as eight or ten sleeping in an ordinary room. In the larger houses most of the rooms open upon a dark corridor, the only source from which these rooms get light and air. There are a few metallic or wooden receptacles for refuse. Toilets are used only when absolutely necessary, and the odor from the decomposing excreta in the hallways is almost unbearable. The basement dwellings are especially filthy; the alleys are all faced by dwellings, which renders a completely sanitary condition almost impossible. The streets are cobble stone paved and hard to keep clean. There is little family life, and a large percentage of the women are prostitutes. No part of Chinatown is in a sanitary condition. The district is immediately adjacent to the retail center and surrounded by a large white population, and the constant intercourse with Oriental ports will prove a menace at all times.

It is but fair to those in authority to state that there have been but three cases of bubonic plague outside of Chinatown, and they were in the immediate vicinity. Of the ninety-six cases occurring from March, 1900, until the last discovery, December 11, 1902, but four recovered. The Chinese concealed the sick, and only a few were discovered alive. No case resulted from a case discovered alive by the health authorities, but an infection from a culture of one so resulted at Ann Arbor, Mich. The local health department took the initiative in the quarantine restrictions. The city health department ordered a quarantine of Chinatown in March, 1900. This was lifted by order of the Federal Court in five days. Altogether, quarantine was established three different times. In all the measures they had the co-operation and assistance of the federal health officers. I am informed that there was constant and vigorous opposition on the part of the Governor of the State, the mayor of the city, and commercial interests.

The diagnosis was made by human cases, post-mortem examinations, cultures of the bacillus pestis, and inoculations of animals with the cultures. Enclosed with report you will find specimens kindly given me by Dr. Harry Ryfkogel, expert engaged by the State to make a diagnosis of the disease. These are spleen sections of guinea pig.

Specimen No. 1 shows the bi-polar characteristic, stained with Carbo-Fuchsin.

Specimen No. 2, stained by Carbo-Thionin.

Specimen No. 3, stained by Carbo-Thionin. Look for Flagella. Gram's method decolorizes.

Agar streaks made from fresh organs show many small isolated dewdrop cultures. A smear specimen will sometimes contain other forms.

When plague attacks a locality there will almost certainly be a large number of dead rats.

Dr. Novy reports cases without bubo or pneumonic symptoms. They resemble typhoid, and unless a Widal reaction is obtained advises that it should be kept under observation. The ecchymoses are the most constant of the objective symptoms and result almost certainly from bites of insects, whether they existed before or not. The epidemic usually starts with the bubonic form and becomes pneumonic as it increases in severity. There have been but few of the pneumonic variety on this coast.

The measures for the prevention of the spreading of the disease were confined entirely to Chinatown and the shipping. Cases were isolated in Chinatown, houses infected were quarantined and fumigated with formaldihyde gas, and sulphur, the bacilli not being tenacious of life. Rats were caught and holes blocked. Plaster on the walls was removed in a few instances. Ground soil was removed and flooring replaced by new. Sewers were blocked, the streets were cleaned and sprinkled with chloride of lime. The cause of death was, and is now, ascertained by autopsy, unless the cause is previously known without question. I had the pleasure of witnessing an autopsy under Dr. Glennon, illustrating the thoroughness of the Federal work.

Haffkine immunization fluid was used in the first quarantine, but it met with such objection, followed by an injunction, that it could not be carried out effectively. This fluid is purely prophylactic. It is not curative and should not be confounded with Yersin serum. It is a toxin and should not be used on a person who has already contracted the disease. In a week or ten days its antitoxic effect is produced, and renders one immune. This lasts several months. The inoculation is followed by a reaction. Yersin antitoxin was used in the cases discovered alive. Accompanying this report you will find samples of the French preparations, although the Federal laboratory material has been used a great deal.

There is an ordinance in view requiring people to vacate all cellar homes, and it is proposed to cut new streets through Chinatown and repair the old ones with material making a smoother surface for more thorough cleaning. The shipping has been directly under the charge of the city health officer. All ships leaving San Francisco have been fumigated with sulphur and given a clean bill of health. While the fumigation is going on the ship is held away from the wharf and rat guards are placed on the cables and ropes. Enclosed you will find a photograph illustrating a ship so treated at San Diego.

Dr. Glennon, in charge of the Federal quarantine, invited me to a meeting of the Federal officers and the public health officers and the local health officers, in which it was decided to share the expense and management between the state, city, and Federal governments, in order to eliminate all danger of a future epidemic. Ten inspectors are to be employed daily in Chinatown alone for one year, and a thorough overhauling is to be made. It was made public at this meeting that the commercial bodies and the mayor had signed a telegram to the surgeon general that plague had existed in San Francisco and requested the co-operation of the Federal authorities in the future. A summary of my investigations in San Francisco proves that plague has undoubtedly existed there. There is none there now. There is a disposition to clean up a very unsanitary spot which will materially lessen the possibilities of a plague in our coast cities.

The other points at which the disease has appeared in California are: Berkley, Feb. 22, 1902, one case and one death; Davisville, April 20, 1902, one case and one death; Oakland, Sept. 23, 1902, one case and one death. Also at San Diego, at the quarantine station at the entrance of San Diego Bay. It was brought here by the steamer City of Carlysle, on which six of the crew died on the voyage. Two died just at the entrance of the harbor and were buried in quick lime on the quarantine reservation. One, the third officer, recovered. This latter case was contracted in a peculiar way. The captain called for volunteers to sew the bodies in blankets and fasten metal grates to their feet in order to sink them in the sea. In hoisting the bodies one fell and was caught by the officer. Just seven days later he was taken sick. He had been Haffkinized with the balance of the crew and passengers, and to this no doubt he owes his ultimate recovery. An abrasion on his wrist was the most likely point of inoculation. The quarantine station at this point has all the equipment necessary for preventing the entry of the disease. The station has accommodations for passengers and crew, lighters for cargo, sterilizers, vaporizers, and pumps for very extensive work. It is interesting to know that there was no passage of the disease beyond this point, although the health officer had somewhat similar opposition to that experienced at San Francisco. He was, however, fortunate in possessing the confidence of the commercial bodies and local health officers at San Diego.

In California and Mexico the mortality of the disease has been about ninety per cent—about the same as has existed in the Orient. Orientals have been attacked chiefly, and are not so able to stand the disease as are the European races. We have an advantage that will always serve us for good, and that is an efficient quarantine service, both Federal and local.

At Los Angeles I was in the Chinese quarter in company with the chief of police, who kindly showed me all the points of interest. I again visited it in company with Dr. Black, city bacteriologist, who performed an autopsy on a Chinaman. The health authorities here have daily inspection and perform autopsies on all Chinamen, the cause of whose death is not previously known. A bounty is offered on dead rats. Dr. Black uses calomel to poison them. The Chinatown here is the best kept of any I have ever seen, and compares very favorably with other portions of the city. The streets are clean, the houses are, as a rule, clean, also, and there is not the crowding that is seen in most other such places. There is good ventilation and light.

Of the Mexican Pacific Coast cities, plague has obtained an entry into Mazatlan, where there have been about 235 cases. Of this number, there have been over 200 deaths. A cordon was placed around the city and no one was allowed to enter or depart. Physicians in the interest of the public health department were allowed to enter, but not to depart. The disease has been controlled and is on the wane, but a few new cases are discovered. It is to the credit of the Mexican health authorities that the disease has made its appearance at none except coast points, although the sanitary conditions are very poor. A majority of the poorer class live in adobe houses with dirt floors and little light. They are fortunate in living in a delightful climate and being lovers of outdoor life.

The source of the case which first brought the disease to Mazatlan is now under investigation and will undoubtedly be determined soon. It is generally supposed that the steamer Curacoa brought the disease from San Francisco. The disease was carried to Ensenada, Lower California, about sixty-five miles below the line between the United States and Mexico, from Mazatlan. Here there were fourteen cases, of which thirteen died. No cases exist there at present. An officer of the public health department was likewise stationed there, keeping the disease under observation and materially assisted the American quarantine officers.

Our chief source of danger lies in our Oriental commerce and especially so from ambulant cases which escape detection by ordinary inspection. A goods ship may distribute it through goods, though there may not be a single case on board during the passage over. A case may appear in Seattle at any time, but it is hardly probable that it will come from San Francisco. I do not advise a quarantine against San Francisco at this time. The district of Chinatown is filthy, but there is no plague there. I would suggest for your consideration an inspection of Chinatown, including the Japanese quarter, at short intervals. Also, a thorough cleaning of the district, and, above all, an ordinance requiring five hundred cubic feet of air space for each individual occupying a room for sleeping quarters. This would be of much general benefit as a sanitary and hygienic precaution in all diseases, particularly pulmonary tuberculosis, with which these people are so much afflicted, and would be of service to the whole community. Also, an inquiry into the cause of death in cases where the history is unknown.

ETIOLOGY OF ECTOPIC PREGNANCY.*

By J. J. Panton, M. D.,

PORTLAND, ORE.

Dr. J. J. Panton, in introducing this subject, said:

I will begin my remarks by confessing that they will contain little or nothing original, their substance having been culled from various sources.

As a preface, let me explain why I have adopted the above title instead of that found upon the cards announcing this meeting, which give it as "Extra-Uterine Pregnancy." The two terms, although generally used synonymously, have slightly different meanings. Raymond says, "Ectopic" implies that gestation is outside the uterine cavity. A gestation may occur in that part of the Fallopian tube which is situated in the uterine wall. Such a one, described under the name, "interstitial," would not be "extra-uterine," for it is within the uterus. It would, however, be "ectopic." So much for my explanation. As a further preface, allow me to say that various observers have recorded ovarian and abdominal pregnancies; but Webster in his "Ectopic Pregnancy," puts it down as "extremely probable that no gestation can begin its development except in some part of the genital tract derived from the Mullerian ducts, which form the uterus and tubes." He treats the subject very exhaustively and, to save time, I intend to grant the correctness of his views without argument. Having done so, I must consider all ectopic pregnancies as of tubal origin, and I will proceed upon that basis.

In these remarks the word "ovule" will be used to designate the unfertilized product of the ovary and "ovum" the same after impregnation. No conclusions, that are entirely satisfactory, have been reached as to the causation of ectopic pregnancy, our knowledge on the subject being largely theoretical as yet. A great difficulty is said to lie in the fact that we do not know the exact point at which the spermatozoa normally meet and impregnate the ovule, some authors arguing that this occurrence takes place within the uterus, while the dictum of others is that it usually occurs in the Fallopian tube. The ovule or ovum is inert and depends for its transportation upon the peristaltic action in the walls of the tube and the movement of the cilia of the tubal epithelium, assisted possibly by a fluid current passing through the tube from the pelvic cavity to the uterus. In contradistinction, the spermatozoa possess a very lively power of locomotion of their own, as is demonstrated by their ability to travel from the vaginal orifice up to and through a virgin *os uteri,* the latter possibly occluded by a mucous plug, and they have been known to pass from outside the vulva through an almost imperforate hymen and finally penetrate the uterus in a perfectly healthy condition. This being so, it is easy to imagine their ability to traverse the Fallopian tubes despite the opposition of its ciliated epithelium and of its peristaltic action. Spermatozoa have been repeatedly demonstrated in every portion of the genital tract and also in the pelvic cavity of the female among the lower animals soon after coition.

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*Read before the City and County Medical Society of Portland, March 4, 1903.

Another interesting fact is that pregnancy so infrequently occurs in women in whom the ovary has been removed from one side and the Fallopian tube from the other, migration of the ovule being thus demonstrated. There appears, therefore, to be a very vigorous effort on the part of nature to bring together the male and female contributions toward reproduction of the species and, if the purpose is thwarted by their encountering impassable barriers in the direction that should be normal, she endeavors to accomplish it by selecting another way. I think we may allow the possibility of correctness to either or both disputants as to the normal site of impregnation. We may suppose that the tube is the proper place for it to occur, and that in ectopic pregnancy it has occurred there, the subsequent progress of the ovum having been arrested by tubal abnormalities. On the other hand, we may accept the theory that impregnation should take place within the uterus, but that it has been impossible there, owing to the non-arrival of the ovule, which has been detained by some obstruction in the tube, and that the spermatozoa, having failed to find the ovule at the trysting place, have merely continued their quest for it, and accepting Hobson's choice, have impregnated it where they found it, at the site of the detention.

Both these theories appear to agree on one point, viz., that ectopic gestation is due to some faulty condition in the tube, interfering with passage of the egg, impregnated or not as the case may be, and this we may accept as correct in nearly every case; but it may be possible that some unusual condition in the ovum itself occasionally causes its premature adhesion before reaching the uterine cavity. In any event, when ectopic gestation takes place, there must be an opening in the tube sufficiently large for the spermatozoa to traverse it, although the ovum is unable to pass. Here let us recall our knowledge of the relative sizes of the two elements, as it renders easier the explanation of certain cases. The diameter of the ovum is five times greater than the length of the full-sized spermatozoon, whose length is many times its own thickness. It is now easy to understand that the spermatozoa easily pass through an opening impenetrable to the ovum.

Among the prominent factors in the causation of ectopic pregnancy frequently appears to be external migration of the ovule; that is, it passes from the ovary on one side and enters the tube on the other, and some observers believe that, during its external migration, it becomes so large as to be unable to traverse the lumen of a tube whose condition is not far from normal.

Congenital abnormalities may be at fault. Among these may be mentioned volvulus or twisting of the tube (with lack of development), which is said to arrest or very much retard the progress of the ovum. Under this head will also come diverticula, which may catch and "bottle up" the ovum, if that expression is allowable. These conditions may be causative in primiparae.

Pathological conditions are, by far, the most frequent causes. The results of gonorrhoea or tuberculosis are etiological for primiparae, as well as multiparae; but most cases of ectopic pregnancy are found in women who have borne children or been the subjects of abortion. Among these results of disease may be enumerated the following, viz.: (1) Peritonitic adhesions, constricting the tube or distorting its course; (2) loss in the tubal epithelium of its cilia, arresting the progress of the ovum or depriving it of necessary propulsion; (3) atresia of the tube, due to preceding pyosalpinx; (4) thickening of the tubal walls, diminishing peristalsis; (5) pressure from growths outside the tube or in its walls. In this connection, Garrigues says that pregnancy is more common in the tube on the left side and attributes it to pressure from the rectum and to the absence of a valve in the left ovarian vein and its opening into the renal vein at a right angle, promoting venous dilatation and consequently pressure. (6) Cervico—abdominal fistula after hysterectomy, admitting spermatozoa and permitting fertilization of an ovum in one of the tubes.

Bandler, of New York, says that experiments show it to be probable that no ovum can develop in a perfectly normal tube. In considering the cases that have been closely noted, it is found that ectopic gestation occurs most frequently in multiparae and that a sterile period of varying length precede this pathological development. This sterile period represents the time in which inflammatory changes in the mucosa may occur, either gonorrhoeal, puerperal or tubercular. These changes naturally involve the uterine end of the tube more than the abdominal and in the subsequent course of events, when healing does result, the uterine end improves slowly. The observation of Duhrssen, who found cilia abdominal to the placenta site and none median to it, and Veit's observation of inflammation median to the ovum, as well as the theory of congenital and acquired atrophy of the tube, especially subsequent to labor, lead us at the present day to seek in the microscopical changes of the tubal mucosa, the injury to the villi, the etiological factor in tubal gestation.

DIAGNOSIS OF ECTOPIC PREGNANCY.*

By W. W. Skene, M. D.,

PORTLAND, ORE.

It is of the greatest importance that we should be able to make a diagnosis of ectopic gestation in the earlier stages. In Lawson Tait's book, on the diseases of women, published in 1888, a positive statement is made to the effect that no authentic description exists of an unruptured tube pregnancy. Today we do know, however, that it does exist, from our better knowledge of its symptomatology, due in part to the extensive literature on the subject and to our own personal experience, both of which enable us to make as correct a diagnosis of an ectopic gestation as in any other form of internal disease.

The symptoms must be considered. (1) Before rupture. (2) At time of rupture. (3) After rupture.

The patient generally gives a history of several years of sterility; a cessation of the normal menstrual period for a greater or less time, the occurrence of intermittent cramp-like pains in the lower abdomen, most marked on the side affected, and radiating over the whole abdomen like an attack of colic; a discharge of blood from the uterus, which is tenacious and of a chocolate color. The microscopic finding of the cast of decidua is a valuable sign.

The usual signs of pregnancy are present: Nausea, vomiting, soreness and enlargement of the breast. On making a bimanual examination, the uterus is slightly enlarged; the os soft and patulous. You will find on one side of the uterus or back of it, a mass well defined, tense, tender and pulsating and rapidly growing. There is evidence of extraordinary vascularity in the pulsating vessels which are easily felt, and this is a sign seldom found except in intraligamentous fibroma or occasionally in cancer.

Symptoms at time of rupture.—There will be sudden severe pain in the region of the ovary, accompanied by fainting (partial or complete), cold, clammy perspiration, sighing respiration; pulse is feeble and rapid: the temperature becomes subnormal: great restlessness: in short, there is shock. Of the physical signs where rupture has taken place, little can be learned by examination.

Symptoms after rupture.—These are in addition to the other symptoms given before and at the time of rupture. In case the bleeding ceases and the patient rallies, the symptoms of shock gradually give way to evidence of peritonitis.

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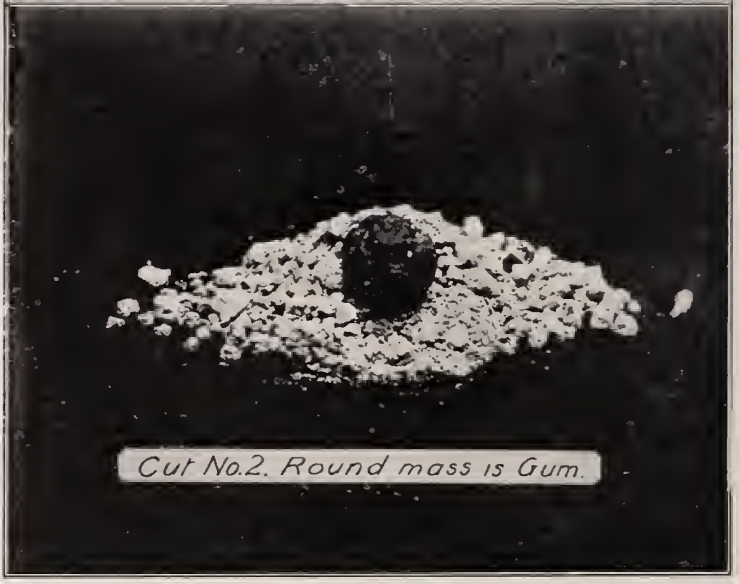
*Read before the City and County Medical Society of Portland, March 4, 1903.

Physical signs are: On vaginal examination, a well-defined mass felt on the side, behind or in front of the uterus, which gives a boggy feeling.

In differential diagnosis we have to differentiate from abortion, pyosalpinx, hydrosalpinx, small ovarian cyst, ovarian haematoma, pregnancy in a uterus bicornis.

In abortion the uterus will be somewhat larger than in ectopic gestation and will find no mass in the tube. In pyosalpinx we will get a history of some previous inflammation with temperature, and the absence of the symptoms of pregnancy. In small ovarian cyst, we sometimes find uterine hemorrhage, but without the other symptoms of pregnancy. In the ovarian growth of the tube there will be no history of amenorrhoea and the other symptoms of pregnancy will be absent. In pregnancy in a uterus bicornis the presence of the horn of the uterus and the fact that the pregnant horn is continuous from the cervix upward and the tumor being denser, enables us to differentiate.

Cut No. 1. Round mass is Gum.



Cut No. 2. Round mass is Gum.

CLINICAL NOTES.

TWO CASES OF CHEWING GUM IN THE BLADDER.

By J. B. Eagleson, M. D.,

Seattle, Wash.

Case 1. The patient was a single man, a woodsman by trade, who had suffered from severe irritation of the bladder by over two years, during which time the cystitis had gradually grown worse, despite the various kinds of treatment which had been given him. Dr. D. A. Mitchell discovered a stone in the bladder by use of a sound, and referred him to me for an operation. As the man was strong and healthy, with no indication of prostatic trouble, we decided to remove the stone by crushing. This operation was performed under anesthesia, by the use of a Chismore lithotrite. The stone was about one and one-quarter inches in diameter, but, being soft, was easily crushed. In breaking up the calculus we frequently came across very soft pieces, which seemed to give but little resistance in closing the blades of the lithotrite, but no particular attention was paid to them at the time. When washing the crushed stone after its removal from the bladder, many soft particles were noticed which were very different from the rest, and on examining them carefully they were found to be of a putty-like substance, which could be moulded easily by slight pressure. These were gathered from among the pieces of stone, and when put together they formed a mass which proved to be chewing gum.

The particles of crushed stone and the ball of chewing gum which formed the nucleus of the calculus are well shown in Cut 1.

The patient denied any knowledge as to the way in which the gum found lodgment in his bladder, but thought that, at some time when he was partially intoxicated, a girl had plugged his urethra with it to prevent conception.

Case 2. This patient is a miner who gave the following history: About six months before, while returning from Nome on a steamer, he suffered from retention of urine caused by a spasmodic stricture of the urethra. As there was no catheter or sound on board the boat, the steward volunteered to make a substitute that would relieve him, and proceeded to make one out of chewing gum. It was inserted into the urethra, but on withdrawing it the inner end broke off and was left in the bladder. He came under the care of Dr. J. E. Crichton, who referred him to me for treatment. The use of a stone searcher readily revealed the presence of a calculus, and with this history, it was believed that we had another case with a piece of chewing gum for a nucleus. It was thought there might be some difficulty in removing the gum without a cutting operation, but it was found to be no more serious than the first case. In crushing the stone with the lithotrite, the small pieces of stone were driven into the gum from both sides, thus separating it into small particles, which were easily washed out with the stone through an ordinary evacuator. This case shows how readily a calculus will form about a foreign body in the bladder, and the amount of deposit in the space of six months.

The ball of gum and crushed stone are shown in Cut 2.

A KIDNEY IN THE UMBILICAL CORD.

By Geo. M. Horton, M. D.,

Seattle, Wash.

On the 5th day of March, 1903, I delivered Mrs. F. a primipara, 38 years old, of a male child weighing nine pounds. Labor was terminated with instruments and as the child was being delivered, I noticed a tumor in the cord, about the size of a hen's egg, at the upper part of the umbilical opening, outside of the abdominal cavity. The cord was ligated above this tumor and the child laid aside until after the mother had received attention; then my attention was directed to the child and, taking a pair of scissors, I cut the cord down over the tumor and in doing so, accidentally cut the surface of what I supposed at that time to be a well-formed blood clot, but which afterwards proved, on closer examination,. to be one of the child's kidneys. With fine cat gut I put two stitches in the wound made in the cortex of the kidney, then made an examination of the umbilical opening to see if it was possible to replace the kidney and, finding that the opening would not allow it to drop back, I took a pair of artery forceps and, using them as dilators for the ring until it was stretched sufficiently large, the kidney was replaced in the abdominal cavity. I then introduced some catgut sutures in the ring, taking them good and deep, including the edges of the recti muscles, bringing the peritoneum surfaces together, six in all. The wound was dressed with sterilized gauze and was not again disturbed for a week when it was dressed and found to be perfectly united.

The child did not urinate for forty-eight hours, which of course often occurs where there has been no disturbance of the kidneys. It was necessary to feed the child on artificial food and he is in perfect condition. No anesthetic was given the child during this operation and he seemed to suffer very little pain. It is my intention to keep track of the baby and watch the condition of this kidney. I have been unable to find a like case reported.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D., Editor in Chief.
JAMES B. EAGLESON, M. D., Managing Editor.

Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Application Made at the Seattle Post Office as Second Class Mail Matter.

VOL. 1. APRIL, 1903. NO. 4

THE MEDICAL EXPERT—INSANITY CASES.

Probably no class of evidence is received with so little favor as that of expert testimony, and especially medical testimony on insanity cases, or to be more precise, murder cases in which insanity is a defense. On the medical profession is the blame ordinarily laid. It would rather seem that the blame should fall more upon the shoulders of the legal profession and its judges. No special qualifications are insisted upon by the judges before any person who, either by right of college endowment or by personal grace attaches an M. D. to his name, is allowed to take the witness stand and testify to his own attainments and launch forth into a so-called expert opinion upon almost any medical subject.

Insanity is in many ways the most perplex subject to handle, and by the ordinary student and practitioner, it is less understood than any other medical topic. The law of the land should so read that in murder cases where insanity is the plea, only those persons should be allowed to give testimony who have had a sufficient public or private experience in the observation and in the treatment of insane cases to justify them in posing as experts. Again, an expert in such matters should not be called upon as the witness of the state or defense but by the judge, as an officer of the court. If the defense proposes to make a plea of insanity, the judge should be notified some stated period before the trial, at which time he should be allowed to appoint two experts, to whom such time and means of observation as they might demand, should be allowed and when the trial itself takes place they should give their evidence in whatsoever manner they choose, that is, orally or by deposition. Should such a course be permissible a nearer approach to the true state of the defendant's mind would be reached, justice would be more nearly meted out, and much time and expense saved. Some may object that the matter of a man's life should not be so easily sworn away. Let one who would so object consider for a moment who should be more fitted to judge in matters of life and death, he who is daily accustomed to deal with human life, or he who only occasionally has the death of another staring him in the face.

No man is fitted to act as an insanity expert who does not possess a well founded knowledge of law, psychology and medicine, and the possession of these three things is rarely found in the general practitioner. It is not justice to the public at large, to the defendant, to the judge, to the jury, to the attorney himself, or to the physician in general practice that the latter should be called and forced to give testimony in such matters. He is placed in a peculiar position, and one that only very few indeed are fitted to assume. No doubt many physicians do not have the proper motives when they go upon the stand, but those lawyers who put these physicians upon the stand to prove doubtful points surely have no better ones.

Hypothetical questions can only be baneful as they are now used. A shrewd lawyer sits in his office often aided by some skilled adviser, drafts a cunning hypothetical question laying stress upon the points in the case favorable to his client, touching very lightly, or evading others more important from the point of facts, and this question is propounded to an expert who may be off his guard from a lack of knowledge of the case, and be expected to give an immediate answer which more mature thought would very materially change. Thus he aids in the miscarriage of justice. On account of the omission of and light touching upon important points, a not equally shrewd lawyer on the part of the prosecution fails to protect the expert witness, and he is left apparently swearing to what he does not care to swear to at all. Lawyers too can not be expected to observe the real facts of insanity cases as one skilled in such matters.

As physicians we must admit that there is not the same uniformity in the classification of the phases of insanity as there is in the other branches of medicine, but comparatively speaking there is a great uniformity compared with the legal ideas of insanity, if the opinions handed down by various judges may be accepted as law. Charges to juries are almost as diverse as the number of charges given in cases in which the plea has been insanity. The shrewd lawyer defending a murder case in which there is no doubt of the deed, knows that insanity is his only chance. Maudsley has said that "were the issues to be decided by tossing up a shilling instead of the grave procedure of a trial in court it could not be more uncertain. The less insane person sometimes escapes while the insane person is sometimes hanged." Possibly it would be as dignified as well as much to the credit of both professions and the court if some of these cases could be decided by tossing the shilling.

An attorney will go from one doctor to another knowing that such doctors are not experts, and finally finding one that is willing to help him out unjustly puts him upon the stand as an expert, unjustly bringing out pseudo-evidence given under an oath by an M. D. Thus credence in ourselves is destroyed by such physicians, led on by even worse attorneys.

Let us hope that some day many of us can be excused from serving as experts when we do not feel able to do justice, and that the laws of at least this state will require a showing of some experience in insanity before we can testify in such matters; that the whole matter of insanity may be referred to a commission of experts whose opinion will be final to the jury, and not be interpreted to them by a judge no matter how learned he may be. Then such miserable farces and exhibitions of the profession or attempted perversion of justice will no longer rankle in the breasts of the attorneys and physicians. Each profession would surely be pleased to have it settled.

An example of the most farcial kind has just occurred in Seattle, which has caused both professions to be the laughing stock of the public.

THE WASHINGTON STATE BOARD OF HEALTH.

It is well for the medical profession at large to become better acquainted with the work and purposes of the State Board of Health. The plan is certainly a commendable one to have this board stand, in a certain sense, the supreme authority for matters of health in the state, with a general supervision over local boards.

These relations are especially necessary to control some wide spread epidemics.

The efficiency of the Washington board has been greatly increased by the County Health Act passed by the legislature recently adjourned. The essential features of this act are as follows: Each board of county commissioners is constituted a board of health, whose jurisdiction comprises all the county except the cities of the first class. The board of each county is directed to appoint a county health officer, and in case of failure to do so, the State Board of Health is empowered to make an appointment for such a county for one year and affix his salary, his duties and powers being the same as if appointed by the county commissioners. The boards thus constituted are directed to make suitable rules and regulations relating to contagious diseases, subject to the approval of the State Board of Health. The county health officer is directed to investigate and carry out all suitable measures for the control of such diseases. Hence he is given power to quarantine, isolate and restrain exposed or infected persons as he may deem best. He is made responsible for all his acts to the State Board of Health which is the final authority on any disputed question of contagion or quarantine. Finally, for failure to comply with or for violation of the provisions of this act a penalty is affixed of a fine or imprisonment, or both.

By enforcing the requirements of this act we are not likely to witness future discreditable occurrences, as in the past, where persons suffering from infectious diseases in the city have moved outside the city limits and thereafter were placed under no quarantine restrictions or were so controlled only after much difficulty and friction.

The recent legislature has returned to the plan, formerly in vogue, and fixed an adequate, permanent salary for the executive officer, the secretary of the board. This will ensure the devotion of sufficient care and time to faithfully accomplish the results expected from the board. Hereafter we should reasonably anticipate that the work of the Washington Board of Health will compare favorably with that of the older states in other sections.

THE OREGON STATE BOARD OF HEALTH.

We congratulate the medical profession of Oregon and the people of the state on the passage of the act, by the recent legislature, establishing a State Board of Health. The hitherto anomalous condition of existing without such an important board is now remedied. With such able and well-known men as Dr. A. C. Smith for president, and Dr. Woods Hutchinson for secretary, there will be assurance that the work of the board will be of first-class order, and that the welfare of the state will be preserved in case of future epidemics. By virtue of the recent health legislation, both Oregon and Washington are in a better position of preparation in case of a threatened invasion of the plague, the cloud which is now feared in the horizon.

We wish to criticize but one feature of the Oregon act. Instead of making it mandatory on each county to appoint a physician as county health officer, it is left optional to do so, and, in case this is deemed inexpedient, the county judge shall act in this capacity. It seems a mistake to permit anyone but a physician to hold a medical office. A most commendable feature is the fixing a definite sum of money for the annual expenditures of the board, instead of requiring, as is the case in Washington, that an appeal should be made at every session of the legislature for sufficient funds to maintain the board, the exact amount of money to be obtained always being in doubt.

So far as the prospects for the public health are concerned, both states are better situated than ever before, and the boards of health of both should be able to unite on measures of common benefit.

PROPHYLAXIS AGAINST THE PLAGUE.

Although the authorities in San Francisco have announced that the plague no longer exists in that city and that no cases have occurred since the middle of December, an opinion held by others who have visited the city for the purpose of investigating the situation, this favorable view is not entertained by all who have paid attention to the past conditions. It is recalled that similar optimistic claims have been made at times during the past three years, only to be followed after a varying period by fresh cases. It is observed that the officials of the Marine Hospital Service have considered the disease was present a month later than the date mentioned.

The Washington State Board of Health believes that safety lies only in observing all possible precautions. To this end the board has issued the following order concerning the deaths of Asiatics.

among whom the cases of the disease have been almost entirely confined:

The early detection of the existence of plague being of vital importance to prevent the disease gaining a foothold in this state, and as the cases of plague occuring in California, have been almost exclusively among the Asiatics, and frequently not recognized as such until an autopsy is had, it is ordered by the Board of Health of the state of Washington:

I. Permits for the burial of any deceased Asiatic person shall not be issued by any health officer, until he shall have made a thorough investigation of the cause of death and it shall be proven, beyond a doubt, not to be plague. The investigation shall include an autopsy unless the cause of death is positively known not to be plague.

II. Undertakers shall not prepare for burial, and persons in charge of cemeteries shall not allow to be buried therein, the body of any deceased Asiatic person, until the health officer of that jurisdiction shall certify the cause of death was not plague. Health officers will notify all undertakers and persons in charge of cemeteries within their jurisdiction of this order.

III. Health officers will hereafter make a special report to the secretary of the State Board of Health, of each death of an Asiatic person, stating fully what investigation as to the cause of death has been made and the result thereof. In case of any doubt or suspicion they will notify the secretary of the State Board of Health by telegraph or telephone and hold the body for a bactriological examination.

IV. This order being for the "preservation of the life and health of the state," is issued by authority conferred upon the State Board of Health, by an act of the legislature approved March 16, 1901, page 236 Laws of 1901. The penalty provided by said act for violation of such orders is $50 for the first offense, and $100 for each subsequent offense.

This order will take effect from and after March 25, 1903.

THE STATE BOARD OF HEALTH,
By Elmer E. Heg, Secretary.

THE WASHINGTON STATE MEDICAL ASSOCIATION.

A new departure will this year be inaugurated in holding the meeting of this association on Sept. 1, 2 and 3, instead of in May or June, as has been the previous custom. Dr. Vaughn, of Ann Arbor, is expected to attend, whose presence will assure added interest. It is hoped the profession of the state will plan to visit Spokane in large numbers at this time and help to make this a banner meeting of the association.

THE MONTANA STATE MEDICAL ASSOCIATION.

Montana will stand alone this year among the states of the Northwest in holding the meeting of its state association during the summer, the date being June 17 and 18, and the place Helena. We wish the association a large attendance and a successful meeting. We shall have more to say about it in a later issue.

NOTICE.

Northwest Medicine will be delivered regularly only to subscribers. It will be sent periodically to all other physicians in Washington, Oregon, Montana, Idaho, British Columbia and Alaska, with the expectation that they will also become subscribers. If received by any who do not wish it, the journal will be discontinued on notification to this effect being sent to the Managing Editor.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of March 2, 1903, the president being in the chair. Twenty-eight members and visitors were in attendance.

A motion was passed instructing the secretary to have printed three hundred copies of the new constitution and by-laws, together with a list of the active, non-resident and deceased members of the Society; a list of past officers, and any other historical data that may be of interest.

In the absence of Dr. F. M. Conn, his paper, entitled "The Medical Expert," was read by Dr. Smith. (See page 183.)

Dr. Lyons approved of the contents of the paper. He believed we should try to overcome the idea prevailing among the laity that the expert witness is of little or no value. He understood the reason for discussing this paper was to suggest means of raising the medical expert to a higher plane. There are three reasons why he is not held in greater esteem by the court. First is the mercenary consideration. A fee is essential for the work of the expert, and pay for it is believed to bias his judgment. Any man will be open to this charge. An attorney brings to him a plaintiff in a case, saying he needs expert testimony as to this man's physical condition, and that there is a fee of $50 in the case for him. The physician naturally makes great efforts to find evidence for the client, while if a fee were not in view he might discover nothing wrong with him. Secondly, the physician tries to explain in court something on which he is not posted or knows anything about. The skillful attorney, on cross-examination, may easily hold him up to ridicule or cause his value as a medical expert greatly to deteriorate. He hesitates to admit his ignorance though it might be better for him in the end to do so. Thirdly, the statement is made by attorneys that, if they wish a medical expert on any question, they can obtain any number desired. This claim is undoubtedly true. We also find the biased expert in the corporation surgeon. One never heard of such a man testifying against his employer, however much his views may be at variance with those of other physicians. The remedy for these conditions is another matter. So long as the average physician needs the fees as much as at present he will give biased testimony.

Dr. Schoenle did not think a man should act as expert in a case which he has treated professionally. Here he cannot be expected to hold unbiased opinions, yet we see such cases. One often injures his side by talking too much. He should answer only the questions asked him, and not volunteer information.

He desired to question the ethics, or at least good taste, for a man to sit beside an attorney and post him in the cross-examination of another physician. It is true this is commonly done, but it seems worth considering whether it should be countenanced. He thought the solution of the question of the expert was to be found only in the appointment of a committee, say of three men, to act in all such cases, who have had no previous knowledge of them. In Germany such a board is appointed, which acts continuously, though each side can call additional experts.

Dr. Raymond said the reason the physician's testimony is valued so lightly is the divergence of their opinions. He cited a case against the city of Seattle in which, after careful examination, he and Dr. Lyons testified there was nothing wrong with the man. Other physicians swore that he was disabled for life. He received a verdict for $1,500, though suing for $10,000. Attorneys think they can secure the services of the physicians for any case, at any time, and the fault lies with us. At the same time, it is very common for the physician to fail entirely in obtaining his fee. The lawyer gets his retainer, promises a fee to the doctor and, when the case is ended, forgets the latter. An appeal to the officials will prove useless, and he has no recourse.

Dr. Lyons recalled a damage suit against the city a few years ago for $27,000. The corporation counsel called twelve physicians as experts, holding them for three days. The plaintiff received a verdict of $1,000, chiefly through this testimony. The physicians were offered $2.20 per diem for their services. He wished all to stand together and sue the city for a decent fee, making this a test case. But at last all weakened and accepted $10 each. He said that, until the profession will unite and demand suitable fees for their services in these cases, there will be no relief as concerns finances.

Dr. Schoenle thought an initial fee of $10 should be demanded for the first examination of all such cases.

Dr. Eagleson stated that he had had little personal experience with such cases. For seven or eight years he has refused to serve unless first given a retainer. Consequently he has not been called. If we would observe this rule the dignity of the profession would be maintained.

Dr. Sweeney agreed with the views of the last speaker. He cited a case in which he was once summoned to another city, where he remained for two weeks at his own expense, and was never reimbursed. The attorneys do not value the time of the physicians, but think they can hold them indefinitely. He did not find it so in the East, where one was permitted to go and be summoned when needed. He mentioned the exemptions of the physicians from jury and other duties, and held that, when called by the city or state, we should respond whether paid or not, it being our duty thus to serve the public.

Dr. Raymond said that sometimes an attorney secures one's opinion without his knowledge. He mentioned an instance where once a man made a social call and introduced a case on which he expressed his views. Later, when on the stand, this was brought up as evidence given by him.

In closing, Dr. Smith said the discussion had revealed two practical points on which all seemed agreed. The ill favor in which the expert is held can apparently be removed only by the adoption of some form of appointing a board by the court. The general discussion of this subject by medical bodies throughout the land shows a prevailing drift toward this view, and it seems probable that such a system must ere long come into vogue. All seem agreed that the financial condition can be remedied only by our unitedly insisting on adequate compensation for our services. The accomplishment of this end rests with us individually, and the future will alone prove whether any results will thus be accomplished.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of March 16, 1903, the President being in the chair. Fifty-eight members and visitors were in attendance.

The names of E. Janson and A. B. Kidd, proposed for membership, were referred to the proper committee.

On motion of the Secretary, the Society voted to subscribe to life membership in the Washington Medical Library Association, in order to obtain a file of NORTHWEST MEDICINE, which publishes the transactions of the meetings, to deposit in the archives of the society.

Dr. Stillson presented a patient, a stationary engineer, who, two weeks ago, climbed to the roof to repair a steam whistle. At once he became totally deaf in one ear. Examination revealed a perforated tympanum. The question is as to the cause of the present condition. He presented a young man with a FUNGOUS GROWTH on the Cornea. Twelve years ago it began as a grey spot at the edge of the cornea, without pain or inflammation. Later it gradually caused trouble. Cause unknown. He was first seen last November, when the growth was removed by the electric cautery. It soon returned. It does not affect the surrounding tissues. Four similar cases have been reported from Liverpool, one caused by injury from a pear, another from flour in the eye. Fungous growths also occur in other organs, as the tonsil, ear, and gums.

Dr. Peterkin reported a case of GONORRHOEA TREATED WITH A STRONG SOLUTION OF BICHLORIDE, resulting in an acute inflammation of the whole urethal tract, prostate, seminal vesicles and epididymus. He criticised such ignorant treatment and described the approved methods of treatment.

Dr. Smith exhibited specimens of a complete RUPTURE OF THE KIDNEY, resulting from a fall of four feet. An immediate nephrectomy was performed to check severe hemorrhage.

Dr. Richter exhibited the specimens from a case of CHEWING GUM IN THE BLADDER. Dr. Eagleson reported two similar cases, with exhibition of specimens. (See page 191.)

Dr. Schoenle remarked on the frequency of foreign bodies in the urethra entering the bladder. The authorities claim that 30 per cent.

of the cases result thus and form nuclei for stones. He mentioned that the cystoscope always enlarges an object in the bladder, and hence is often deceptive.

Dr. Johnson referred to a prisoner in the penitentiary at Walla Walla, who passed five strips of chewing gum into his bladder in order to get into the hospital. They were easily removed.

Dr. Winslow once removed three inches of lead pencil from the bladder, that was encrusted with phosphates.

Dr. Tripp related the case of an old man with chronic cystitis who conceived the idea he had stone in the bladder, which he claimed to have removed by filling the bladder with melted lard. Later, having no lard, he used melted tallow, which failed to return. An operation disclosed the bladder wall covered with a thick layer of tallow, about half a pound in weight.

Dr. H. M. Read read the paper of the evening, on ACUTE ARTICULAR RHEUMATISM. (See page 178.)

Dr. Heussey said he believed the disease to be an acute infection. The views advocated by the essayist met his approval. In his first years of practice he used the salycilates almost entirely, but he found they did not shorten the case. He believed we should pay most attention to the heart as being the most important organ involved in complications. During recent years he has used the alkaline treatment to shorten the disease and protect the heart. He thought an acid is formed in the blood that affects the heart unfavorably, and that an excess of alkalies, given till the urine remains alkaline, will counteract this attack on the heart. Rapid heart action is unfavorable and should be reduced. Cold applied to the heart is advisable for this purpose. When the fever is reduced he diminishes the alkalies and puts the patient on iron. The salycilates reduce pain, but he prefers opium for this purpose. Later he prescribes colchicum.

Dr. W. A. Shannon thought the paper covered the ground scientifically and thoroughly. He is accustomed to use the salycilate of ammonium, which is a better antipyretic, is better borne by the stomach and produces less anæmia.

Dr. Moore suggested that the chief fault with the salycilates is that they soon relieve pain and the patient consequently is up and about sooner than he should be, and suffers a relapse.

Dr. Willis could not agree with the writer that salycilates are not curative. He cited the first case he ever treated of rheumatism, in student days, when, on the advice of his instructor, he administered large and frequent doses of the drug to a severe case, with rapid and permanent cure. In practice he has found it surely cures many cases, though some are not affected by it.

Dr. Peterkin said that the salycilates are ineffectual in gonorrhoeal rheumatism. He has found the latter the cause of prostatitis and it should be so treated. Although one joint may be affected, he did not believe this a monarticular form of rheumatism, but due to the fact that the particular joint was used most.

Dr. Becker said few diseases are in so chaotic a condition as those of polyarthritis. Several factors occur as their cause. He disagreed with the reader that the serum of the joint is always sterile. On the contrary, one will always find a streptococcus similar to that of septicemia but different. By proper methods it can be cultivated. There are many causes for joint affections. We do not find a single bacterium in diseases of the pleura and peritoneum. Why so in the synovial membranes. The streptococcus, pneumococcus, gonococcus, colon and influenza bacilli have all been found in the synovial fluid. As the different bacteria may reach the synovial membranes through the lymphatics, we cannot distinguish between them except clinically Hence the salycilates will not benefit all forms or arthritis. Final conclusions on the matter must be kept in abeyance for the present.

Dr. DeBeck referred to certain characteristic eye complications in rheumatism. Whatever the etiology, whether bacterial or due to faulty chemical metabolism, certain irritating fluids are present in the circulation that affect the joint cavities. Serous iritis occurs in rheumatism, for instance, much different from that of syphilis. Episcleritis is another complication. Here the space of Tenon, immediately surrounding the sclera, is the site of deep seated inflammation. Also a rheumatic choroiditis has been described, where the choroid is hazy and dull, different from the mottled appearance of ordinary choroiditis. His experience has been that the salicylates and alkalies improve these conditions.

Dr. Bickford agreed with Dr. Shannon as to the benefit from the salicylate of ammonium. He suggested that much better results could be obtained from the soda salt by taking the clear crystals of salicylic acid and adding the soda. Less disturbance of the stomach will follow.

Dr. Winslow thought that salicylate of soda from oil of wintergreen is far preferable to that of the coal tar product. The dose is less and it is less irritable to the stomach, but it is difficult to obtain it in the stores.

Dr. Miles had also found that the ammonium salt, obtained by treating the acid with carbonate of ammonium, to be the most efficient salicylic compound.

The President invited Dr. Nippert, of Minneapolis, to participate in the discussion, who, after expressing his pleasure at being present and his appreciation of the invitation, said he could not agree with the essayist in excluding hereditary influences. The tendency could surely be traced in families. He believed the salicylates effectual in many cases, especially if given in large doses.

Dr. R. J. Hill, also of Minneapolis, after thanking the President for the invitation to speak, said that he agreed with Dr. Becker, that we cannot proceed with certainty till we know the cause of the disease. He believed in the salicylates, crowded to the limit. If no results are obtained, he resorts to the alkalies.

Dr. Read, in closing, said that the use of different drugs is entirely a matter of individual experience. The salicylates seem to do good also in other infections. It is difficult to tell the exact effect of the drug, knowing so little of the etiology of the disease. So-called gonorrhoeal rheumatism is a misnomer. It is not rheumatism, but an infection. He wished again to assert that the effusion of acute inflammatory rheumatism is always sterile. The presence of bacteria places it among surgical diseases. A joint affected with the streptococcus is rapidly disorganizing and never again becomes useful. The English are the chief supporters of the heredity of rheumatism, and their statements are made with little investigation. When the children of rheumatic parents have the disease it is purely a coincidence.

Discussions of the BUBONIC PLAGUE was next introduced. Dr. Loughary, a member of the Seattle Board of Health, stated that about six weeks ago an agitation arose lest the plague should reach this city. It was thought best to have a representative visit San Francisco in person and report the existing conditions. Dr. J. R. Booth has just returned from several weeks spent there for this purpose. He then read his report on the BUBONIC PLAGUE IN CALIFORNIA. (See page 186.)

Dr. Heg, Secretary of the State Board of Health, stated he had wished this matter to be discussed by the Society in order that, in his official capacity, he might learn the views of the members as to modes of prophylaxis. He stated that the policy of the Marine Hospital Service is to assist local boards of health, but they will not assume charge unless a serious condition arises. He referred to the fact that it has been almost impossible to make a diagnosis till the autopsy and the difficulty of controlling suspected cases. Surgeon General Wyman has expressed the belief that the disease existed in San Francisco in the middle of January, though no cases were reported since December. There may be some even now. It has been reported that 50 per cent. of dead rats and over one per cent. of live ones found in Chinatown are plague infected. He thought that our greatest danger may be through vessels from the Orient. While too severe measures for prevention may not be supported by public sentiment. it is desirable to have some plan in view for the future. The policy of the State Board of Health will be to assist local boards and not assume authority except in case of negligence. The chief point now is to detect any case that may appear here. Therefore he would suggest careful enquiry into all deaths among Chinamen and Japanese. Surgeon White has stated that, in the light of later developments, he believed the disease had existed for a long time in San Francisco before it was officially discovered.

On motion of Dr. Schoenle it was voted to refer this matter to the Committee on Health and Sanitation, to aid and assist the local and state Boards of Health.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. HOLT, M. D.; Secretary, F. J. VAN KIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held March 9th, 1903, the president being in the chair. The minutes of the last meeeting were read and approved. The quarterly bill for hall rent was audited and ordered paid.

The president invited an informal discussion on the subject of the present epidemic of SCARLET FEVER. It was the general opinion that the failure to control this disease was almost wholly due to the lack of public appreciation of the necessity for a rigid quarantine.

Dr. R. L. Markley presented a paper on CHRONIC RHEUMATISM. The doctor believed that indigestion and absorption of ptomaines was a prominent etiological factor. Those addicted to excessive use of alcohol were more susceptible. No climate offered immunity. The doctor had used with great success preparations of colchicum and iron. General discussion followed.

The meeting adjourned to meet the second Monday in April.

CITY AND COUNTY MEDICAL SOCIETY OF PORTLAND.

President, C. H. WHEELER, M. D.; Secretary, A. D. MACKENZIE, M. D.

The regular meeting of the City and County Medical Society of Portland was held in the Hotel Portland, on the evening of Wednesday, March 4th, 1903, the President, Dr. C. H. Wheeler, presiding.

After the usual business had been disposed of, CASES IN PRACTICE was called in order to facilitate the presentation, by Dr. R. J. Marsh of an infant, aged 15 months, with greatly enlarged abdomen. There was nothing in the past history of the case that could account for the present condition. She had been fed on cow's milk. Three months ago slight enlargement of the abdomen was observed by the mother and it steadily continued till it assumed the proportions on view. Clinically no other symptoms were observed, but a slight interference with the movement of the bowels, quite recently. Physical examination did not reveal any abnormalities save enlarged abdomen and ascites; examination of the blood suggested typical field as found in Pernicious Anaemia. The red cells were neucleated; there was no leucocytosis, but there was poikilocytosis. Operation revealed fluid contents, uniformally enlarged liver, no nodules. Treatment by X-ray was instituted, and it would seem as if the enlargement showed signs of decrease. This was a first child, both parents were healthy, residence non-malarial. *Diagnosis* submitted, SARCOMA OF THE LIVER. The medicinal treatment, prior to the X-ray treatment, comprised preparations of hydrarg and arsenic.

The case having been examined with great interest by the members, a general discussion took place, the consensus of opinion being that the diagnosis submitted by Dr. Marsh was the most likely one. Another point developed by Dr. Jones was that statements affirming improvement, following X-ray treatment of malignant growths, were not verified by the post-mortem specimens exhibited before the society in several instances. Several weeks ago a patient was brought before the society, evidently suffering from a malignant growth, and it was stated that through the therapeutic means of the X-ray, the tumor was decreasing in size, etc. At the next meeting of the society, post-mortem specimen was shown. He simply directed attention to those facts.

Dr. Coffey gave notes and details of a case, CARCINOMA OF THE SIGMOID, undoubtedly benefited by the X-ray. He also gave notes and details of a case which seemed to indicate beyond question, that the X-ray had arrested the growth, relieved pain and for the time being at least the patient presented the appearance of recovery.

Dr. Kenneth A. J. Mackenzie believed that Dr. Marsh's case under discussion was one of two conditions, sarcoma of the liver or cirrhosis, with a probability in favor of sarcoma of the liver, cirrhosis being exceedingly rare in early life.

Pathological Specimens.—Dr. Coffey showed a mass, consisting of fibrous growth, cyst and ovary, which he said was only of interest on account of the clinical history of the case. The patient, a woman 39 years old, had enjoyed good health up to last September, when she began to have nausea and vomiting, which continued to progress to such an extent that no food at all could be retained. Her body weight fell from 145 to 70 pounds. Examination revealed a mass in the pelvis and fixation of the uterus, strongly suggesting presence of malignant growth. Exploratory incision revealed the mass on view, wedged in by adhesion between the uterus and rectum; the nature of the growth was still uncertain, but the patient has not vomited since the operation, and she is slowly regaining health and weight.

The chairman announced that the principal business of the evening was an arranged Symposium on Ectopic Pregnancy.—Drs. J. J. Panton, W. H. Skene and A. C. Smith presented the subject from the standpoint of Etiology, Diagnosis, and Surgical Treatment The subject was a very important one to the profession, often an emergency case, and it was very desirable that the general practitioner should recognize and be able to diagnose such cases promptly.

Dr. J. J. Panton read the paper on Etiology of Ectopic Pregnancy.—(See page 191.)

This was followed by Diagnosis of Ectopic Pregnancy, by Dr. W. W. Skene.—(See page 195.)

Surgical Treatment of Ectopic Pregnancy.—Dr. Andrew C. Smith then addressed the meeting, apologizing for not preparing a careful paper on such a grave subject, but it was well known that his time has been fully occupied with other public duties, and he felt he could be excused.

For the treatment of Ectopic Pregnancy, there was no doubt that it was essentially a surgical situation, but judging from his experience, he had been obliged to come to the conclusion that it was not justifiable to operate immediately on cases presenting symptoms of profound shŏck and no evidence of continued hemorrhage; it was best to wait a couple of days or so, use all those means other than operative, to sustain the case. When these cases are first seen in a state of acute anemia with profound collapse, the hemorrhage has already ceased because the great losss of blood has so lessened the vis-a-tergo of the blood current that spontaneous arrest of hemorrhage from a small vessel will have taken place, and the exsanguinated system will be reabsorbing the blood from the peritoneum. Therefore, the patient will be in better condition to stand the operation if we delay a couple of days, when she will have partially recovered from her shock. He did not advise this delay if the case is seen early, or was still bleeding. It is in the extremely profound conditions of shock, when the patient is "too weak to bleed," when to operate, and add to the shock, and remove the effused blood means certain death. If shock is not of this extreme kind, it is a very simple operation, in the very early months of pregnancy. Such an operation he believed could be performed under local anesthesia. The operation should be rapid, and not radical, only arrest the hemorrhage.

Cases after the sixth or seventh months are formidable; the placenta is widely attached, and operative interference may result in a fatal termination on the table. The best method to pursue under these conditions is to leave the placenta. If absolute asepsis is maintained the placenta will atrophy, or may be removed later; but if the slightest infection results the retained placenta would become a mischief maker. In these advanced ectopic pregnancies, the contents of the sac are nearly always sterile. Regarding the treatment of the sac, it may generally be extirpated, but may be left, with or without the placenta. The danger that we are disposed to is to be too radical in the face of great obstacles, and lose our patient from shock and hemorrhage. It should also be remembered that ruptured extra-uterine pregnancy may be taken care of by nature. Dr. Smith said he held an autopsy a few years ago on a woman, who died from another cause, who had a ruptured tubal pregnancy, from which she had fully recovered. In looking back over her history it was clear enough when it occurred, but it had not been recognized.

The doctor closed his remarks by referring to the method of treatment first used by himself, viz.: the introduction of saline solution into the ovarian tubes, during operation, for the relief of profound shock.

DISCUSSION.

Dr. K. A. J. Mackenzie was called upon to open the discussion. He could not agree with Dr. Smith's views regarding operative delay on the plea of profound shock. The patients were generally in a state of shock, exsanguined and pulseless. To delay operation he thought meant the loss of that on which hopes could be based. The vessels were patulous, not protected; there were also other dangers on account of the situation. He related a case in his practice. For eight hours a patient had been bleeding; consequently there was great shock. There was no delay in getting her to hospital. The abdomen was full of blood; the vessel was found actually bleeding. After operation saline was administered and the case passed at once into a state of comfort and safety and continued so. Delay in this case would have been undoubtedly fatal.

The treatment of old ectopic cysts should always be conducted on conservative lines. He had never known failure to follow incision and drainage (posterior colpotomy). The treatment, he thought, should be modified sometimes when the rupture has taken place between the layers of the broad ligament, as here it may become encysted and undergo spontaneous cure. Dr. Skene, he regretted to say, had not referred to this group in the differential diagnosis. He quite agreed with Dr. Smith on the gravity of operating on advanced cases, but they had to be met.

He reminded the society of having exhibited a specimen of ectopic rupture, less than a year ago, in which the ovary and tube had been removed, which procedure was discussed and objected to by Dr. Wm. Jones. Regarding the removal of the tube and ovary he would like the doctor to state if he was still of the same opinion and his reasons for the same.

Dr. Herbert W. Cardwell related a case as follows:

Mrs. S., aet 40. Two children; youngest aet 10. First seen Nov. 12th, 1902, in state of collapse. No history except "cramps" in abdomen, followed by "fainting." Last menstrual period, about two weeks before, said to be normal. Very moderate hypodermic stimulation was followed in less than half hour by recovery from apparent shock.

Nov. 17th was up and about, but complained of lack of strength, obstinate constipation and loss of appetite. Laxative and tonic (iron) treatment gave relief.

Dec. 31st reported having had a painful but otherwise apparently normal menstrual period during the month. During the week ending Jan. 9th she had severe colicky pains in left iliac with chilly sensations and erratic temperature, rising to 103. Exquisite abdominal tenderness. Was removed to hospital by ambulance over five or six miles of the worst road in the state, yet next morning temperature was normal and remained so. Abdominal tenderness had disappeared sufficiently to permit bimanual examination, which revealed a mass apparently the size of a small orange, occupying site of left tube, hard, not sensitive, and moving synchronously with uterus. Diagnosis of ectopic gestation had been made at time of first visit, but the rapid recovery from the shock and the subsequent history had introduced doubt. After examination in hospital the diagnosis was remade and immediate operation was advised. As the patient felt perfectly well and desired to return home, and for financial reasons, operation was refused.

During January a second menstrual period occurred, painful but otherwise reported as normal. Jan. 26th the weather being stormy, patient used a commode within the house, and had, as she supposed, a large liquid stool. On glancing at it, found chamber "half full" of bright red blood. She was alone and fainted, although she insisted that she did not feel badly until after she saw the blood. I found her in collapse and unfit to move. In the country and with no facilities at hand, operation seemed ill-advised and the case was treated expectantly with local applications of ice and morphia, p. o. v., until Feb. 2nd, when she was moved to hospital for operation. On arrival, about 10 P. M., she was very tired, but otherwise in apparently good condition for operation, which was set for early morning. About 4 A. M. she had, without warning, a second hemorrhage from the bowel, of over one quart of bright red blood. Neither hemorrhage contained any feces or fragments of tissue of any kind. It was blood only. On consultation with Dr. Coffey we agreed that operation was justifiable, notwithstanding the desperate condition of the patient. An attempt at hemostasis seemed essential.

Rapid median section revealed a mass in the left broad ligament, filled with blood clot and decomposed detritus, feces, etc. This was emptied and the thickened, matted adnexa tied off on both sides, controlling the hemorrhage. Cleansing of the cavity showed an opening, probably into the rectum, below the sigmoid flexure. Wound rapidly packed and dressed. Temperature before operation 103.4; pulse 160. Patient did fairly well considering the gravity of the condition for fifty hours, but died of shock at the end of that time.

The interest in the case lies in the prompt and apparently complete recovery from the shock of the initial rupture and hemorrhage in November, with two reported normal menstrual periods following, and the adhesions between the mass and the rectum, with rupture into the rectum and severe hemorrhage therein without any spontaneous evacuation of the contents of the sac. The case was under observation only at intervals, and this account is given in narrative form by the use of information gained in part too late to be of use.

Dr. Mae Cardwell submitted details of a case illustrating a point of early diagnosis. She believed in the desirability of diagnosis before rupture. In some of those cases there is no nausea or vomiting; no apparently enlarged uterus, and in general none of the early signs of pregnancy. The case she referred to turned out fortunately to be an inflamed ovary, but nevertheless for the time being there were several features suggestive of extra-uterine pregnancy and urgent reasons for an early diagnosis.

Dr. Jones agreed with Dr. Smith that the treatment of ectopic pregnancy was purely a surgical one. The earlier the case was operated upon the better the result, providing it was recognized. He believed he would operate on patients referred to by Dr. Smith, who are greatly shocked. Delay was dangerous, furthermore he thought it was not easy to distinguish between shock and hemorrhage. He related a case which appeared very suddenly, pain passed away, but there was a strong clinical history pointing to ectopic pregnancy; he operated and found minute rupture; large quantity of blood in the abdomen. In this case the patient would have bled to death had she been left alone.

Regarding the contents of the sac, he had not found them all aseptic as Dr. Smith had. In response to Dr. K. A. J. Mackenzie, he said he simply related his individual experience of a particular case; he had closed the tube because it could be done easily and with facility. So far it has been a success, and he would do the same thing over again providing, of course, that the conditions were favorable.

Dr. A. D. Walker said he saw the case Dr. Cardwell had reported, and could corroborate some of his statements.

Dr. Coffey said, in reply to the statement of Dr. Mae Cardwell, that we should make a diagnosis before rupture was an extreme radical view. It was also to be remembered that many of the cases get well of themselves.

In regard to the view expressed by Dr. Smith of the delay, he remarked that shock is a purely nervous phenomenon, and still there are some good authorities who believe that no true case of nervous shock is ever benefited by remedies. When hemorrhage exists, of course it was useless to delay operation. As far as he could remember, he never saw a case of ectopic pregnancy in which he would delay an operation. He believed it was true that patients in this condition rarely die of hemorrhage alone. He discussed some of the details submitted by Dr. H. W. Cardwell.

Dr. H. F. Mackay said that in all the cases he had seen the diagnosis was much easier after than before rupture; even then there were many other conditions that simulated ectopic pregnancy—for instance, appendicitis, tumor with twisted pedicle. He did not think there was any positive single sign by which a case could be diagnosed. He had always been called after rupture.

Dr. Skene, in closing his side of the discussion, said that he believed cases like that reported by Dr. Cardwell should be operated upon when suspicion of ectopic pregnancy existed. The abdomen should be opened and if it turned out to be a cyst or a tumor, no harm was done. He could not agree with Dr. Smith in advocating delay.

Dr. Smith, in reply, stated that he fully realized the debatable statement he had taken up, and that his remark only applied to those desperate cases that presented evidence of great shock. This was the result of his experience; he felt that if he had delayed operating in one case for which time was too short to give the details at present, it would not have ended fatally. He had advocated delay and in nearly all the cases that had been quoted this evening there had been delay, and all seemed to have got on very well in spite of it. His opinion was still unchanged, notwithstanding what had been said. He believed those desperate cases should be left alone; they would reabsorb their own blood in twenty-four hours. Regarding Dr. Jones having found contents of sac septic, he believed that was so, but only in tubal cases. Diagnosis was facilitated in those cases by the presence of temperature.

Dr. H. F. Mackay, in the course of a few remarks, moved that a standing vote of thanks be accorded to Dr. Andrew C. Smith for his success in being the means by which a State Board of Health had been established in the State of Oregon. The resolution was passed unanimously by the meeting. Dr. Smith, in his reply, thanked the meeting for the cordial way in which the resolution had been received and passed, and at the same time gave a brief sketch of how the details of the work were carried to a successful issue in spite of powerfully directed opposition. He also reminded the meeting that his brother senators, Drs. C. J. Smith, of Pendleton, and Wm. Kuykendall, of Eugene, were also as highly deserving of recognition, probably just as much as he was himself.

RECENT PROGRESS IN MEDICINE AND SURGERY.

SURGERY.

Edited by

J. B. EAGLESON, M. D., Seattle. E. E. HEG, M. D., Seattle. K. A. J. MACKENZIE, M. D., Portland.

OPIUM IN SURGERY. (By Edward Wallace Lee, M. D., New York Medical Journal, March 28, 1903.)

After detailing the usual pertinent objections raised to the use of opium in surgery, the author says: It is the injudicious use of opium in a careless and unscientific manner that has brought it into disrepute, and not the fault of the drug. Aside from its benefits as a scientific therapeutic agent, it has many indications from a humanitarian standpoint, as mental anguish and physical suffering cause positive harm.

It is especially indicated in fractures, not only to relieve pain, but to bring about muscular relaxation and also in spasmodic contraction of the vesical sphincter when catheterization is painful or almost impossible, and in severe burns it is a blessing. The assertion that the administration of morphine prevents the healing of tissue is disproved by operations on opium habitues, when, other conditions being equal, primary union is secured as in other cases. Morphine is strongly indicated in traumatic or surgical shock, if accompanied by pain or hemorrhages, and is especially indicated if the injury is to be followed by an operation, as it not only prevents shock, but also secondary shock.

In abdominal surgery, where it is possible to clean out the intestinal tract, relieving the lung, kidney and liver of congestions, he does not believe it does the harm it is credited with by some, but should be used with caution. Where the surgical shock is accompanied by so severe a pain as to cause uncontrolable restlessness, or restlessness without pain, a condition due to hemorrhage, morphine in adequate doses should be given. Morphine being the best internal hemostatic, is absolutely indicated in hemorrhage with restlessness for its effect on both mind and body. A preliminary hypodermic injection of morphine renders anesthetization, in alcoholic and exceptionally neurotic patients, quicker and safer and favorably effects the stage of recovery. Obstinate and exhausting vomiting after an anesthetic will often be relieved by morphine.

He believes that under many conditions the teachings of Alonzo Clark, in advocating the judicious use of opium in peritonitis, are still good, as the patient demands mental, anatomical and physical rest. Surgical procedures, hot and cold applications and the free administration of cathartics are, of course, indicated, and rest can be promoted thereby, but after these have accomplished their purpose, a judicious use of opium will put and maintain the parts at rest, and sometimes this will be considered the proper treatment of peritonitis, and more suffering and more lives will be saved than by the active treatment with cathartics. HEG.

NOTES ON THE FREQUENT GREAT DISPARITY BETWEEN FALLS ON THE BUTTOCKS AND SUBSEQUENT PERSISTENT PAIN AND HELPLESSNESS IN THE AGED. (By Oscar H. Allis, M. D., Annals of Surgery.)

It is well known that slight injuries produce fracture of the neck of the femur in the aged, and the results vary greatly, from a good limb in a few weeks to total helplessness, irrespective of treatment.

The writer recites three cases, aged 79, 65 and 66 years, all having a fracture of the neck of the femur from a slight fall. In none was there any attempt at treatment beyond efforts to avoid bed sores and to make the patients comfortable. They lived four, six and six years respectively, and all suffered intensely until death, and were practically helpless. He then recites three cases, aged 63 years and 78 years, one age not given, who received similar fractures from slight falls and who all recovered within a few weeks, with useful limbs without other treatment than that given in the first three cases. To make more emphatic the uselessness of any particular treatment, he relates a case (treated by Dr. Stillwell), age 67 years, slight fall, fracture of the neck, treated by extension and lateral supports for eight weeks, during which time there was no pain. After discontinuance of extension, at the end of eight weeks, pain commenced and continued for six years, up to death.

He therefore concludes the different results are due: First, to osteophytes springing up about the injured bone, or fragments of bone at original injury becoming fixed and pressing the tissues, proven by one case at autopsy; second, the fall may produce concussion of the joint, and cause mild subacute arthritis or absorption of cartilage or denuded bone (hardly probable, from the slight injuries mentioned.—E. E. H); third, sciatic nerve may be pinched and torn, though he distinctly states he has no facts to warrant this statement; fourth, ligamentum teres may be torn, of which, also, he has no positive evidence, but had found in one autopsy this ligament was either congenitally absent or absorbed.

As to treatment, he offers the suggestion that the head of the femur may be removed, with reasonable expectations of relieving the pain, after having waited a period of two or three months without result from other treatment, provided the conditions will permit it.

HEG.

THE PRESENT STATUS OF THE X-RAY TREATMENT OF MALIGNANT TUMORS. (By William B. Coley, M. D., Medical Record, March 21, 1903.)

The author states that cancer, including all varieties of malignant tumors, is increasing, while our means of combating it have failed, up to the present, to keep pace with the increase. While the X-ray has been used for six years or more, until recently no serious attempts have been systematically made to test its value in all varieties of malignant tumors. Gilman, of Chicago, in December, 1900, stated he had "treated twenty-five cases of true cancer, with a loss of only two cases," and while none had remained well long enough to be called cured, these results did much to arouse interest in the subject. In January, 1903, Gilman claims in over 200 cases to have "a record of recoveries somewhat greater than the average recoveries from typhoid fever in ordinary practice," and without mentioning a single case in which the disease entirely disappeared and the patient remained well long enough to call it a cure, he concludes, "We have arrived at a stage in the rational treatment which will reduce the mortality of cancer to an insignificant factor."

In May, 1901, Dr. Carl Beck, of New York, reported a case of recurrent melanotic sarcoma where a recurrence at the ankle and metastatic tumors in the groin disappeared, but the patient died later of recurrence. Williams, of Boston, Pusey and Grubbe, of Chicago, Skinner, of New Haven, and Morton and Johnson, of New York, all give evidence that superficial epitheliomata and also deep-seated growths may be made to disappear under X-ray treatment.

Pusey believes inoperable sarcomata, and also cases of sarcoma after operation, should have the benefit of the X-ray treatment; he also reports two cases of Hodgkins' disease treated by the X-ray with marvelous improvement. Later, Pusey reports a number of cases, of which the writer details three cases of recurrent carcinoma of the breast, in all of which the nodules disappeared, while in three other cases the treatment had little or no effect.

A case of sarcoma had been treated by the author with erysipelas toxins, after having been operated on six times, and left the hospital with a large inoperable tumor. He was treated later by Fiske, of Brooklyn, with the result of total disappearance in six weeks. Metastatic tumors developed later, which also yielded to the X-ray, and for nearly one year the patient was free from any further recurrences. Skinner reports the following results: Complete disappearance in 3 cases; permanent reduction in 13; temporary reduction, with subsequent increase, in 1; permanent arrest only of growth in 12; no effect on size of lesion in 14; pain was permanently relieved in 14; complete temporary relief in 2; partial relief in 8; no relief in 4, and in 5 there was no pain. General conditions permanently improved in 11; temporarily improved in 8; not improved in 8, and was not impaired at time of treatment in 6. There was gain of weight in 6; in 14 there were evidences of systemic toxemia; in 5 cases there was no apparent benefit.

Dr. Sequira, of London, reports thirty-four successful cases out of eighty of rodent ulcer, most of the others being still under treatment, some not having recurrences for two years. The microscope showed epithelial cells were destroyed and connective tissue elements were stimulated to form healthy scar tissue. Glandular affections of epithulomatous origin were very obstinate to X-ray action. The writer's experience was similar. Dr. Dawson Turner, of Edinburgh, in November, 1902, reports eighteen cases of various forms of cancer, all inoperable, all but three more or less improved. The best results were obtained in recurrent cancer of the breast, and the poorest in cancer of the tongue. Grubbe, of Chicago, reports four cases of cancer of breast, all improved. Dr. C. W. Allen, of New York, reports fifty cases treated during the past year, twenty-six discharged "clinically cured," only three unimproved, and five fatal. He advocates use of the X-ray before or in preference to surgical intervention.

The author reports 25 cases of sarcoma, 17 round celled, 3 spindle celled, 1 melanotic round celled, 4 doubtful variety. Anatomically classified, they were 6 of the neck, 3 of the thigh, 3 intra-abdominal, 3 of the parotid, 2 of the pectoral region, 2 of the testes, 1 each of femur back, frontal sinus, iliac fossa, chest wall and superior maxilla. Four inoperable round celled cases entirely disappeared, but all recurred later. Seven others—3 round celled, 1 melanotic, 3 spindle celled—improved; 13 no improvement. Five other cases were advised to use X-ray treatment, and did so under other physicians; four resulted fatally and one improved. One case of Hodgkins' disease remarkably improved. He treated twenty-one cases of cancer of the breast, fourteen of which were recurrent and inoperable. One advanced primary cancer was held in check with slight improvement. In four cases the X-ray was used immediately after operations as a prophylactic measure, one showing recurrence and three none in four to seven months. In three cases, where recurrence was a small nodule on the scar, two recurred in a few weeks. Most of the other cases showed slight improvement, but in none did the disease disappear. In fifteen cases of epithelioma of the face and head, in none did the disease disappear entirely, but most showed marked improvement. Of eleven cases of abdominal cancer, one recurrent cancer of the uterus showed no improvement, another uterus case apparently disappeared after three months. A case of cancer of rectum and sigmoid was improved; another metastatic case of the rectum was improving.

As to the relative merits of the toxins and X-ray in inoperable sarcoma, while some cases treated with toxins without result, have been benefited by the X-ray, a larger number have entirely disappeared and remained well after use of the toxins than after the X-ray treatment. However, there is no objections to using both methods.

Regarding technique, he says it is impossible to lay down dogmatic rules for an ideal technique. For large tumors a twelve-inch coil is probably better than an eight-inch, and a high better than a low tube. The dangers are from burns and malpractice suits therefrom. There is danger of toxemia from too vigorous application of the rays to large vascular tumors. His experience leads him to believe that, while the X-ray is a valuable therapeutic agent, its effect are temporary except in a few cases of superficial epitheloma or sarcoma, and should be used only in inoperable cases.

He concludes the evidence shows the X-rays to have an inhibitory action on all forms of malignant tumors, most marked in primary sarcoma of lymph glands and superficial epitheliomata. Sufficient time has not yet elapsed in a single case of cancer treatment with the X-ray to justify us in regarding it as cured. While the X-ray has a legitimate place in the treatment of inoperable cancer, present data do not warrant us in advising the method in primary cases. HEG.

OBSTETRICS AND GYNECOLOGY.

Edited by
P. W WILLIS, M. D.; W. A. SHANNON, M. D.

OBSTETRICS AND THE GENERAL PRACTITIONER. (Dr. M. Howard Fussell, The Journal of the American Medical Association, December 27, 1902.)

Fussell arraigns the general practitioner for carelessness in midwifery practice, and urges closer attention to the patient throughout pregnancy and the puerperal period. The following is quoted from his excellent paper:

"Since Lister formulated the law of asepsis, maternity work in the hospitals has become an entirely different practice from what it was in previous years. Formerly mortality in the maternity wards of hospitals was extremely high; at present both the mother and child are perhaps safer in the wards of hospitals than in any other place. It is very questionable, although difficult to prove, whether there has been a corresponding reduction in the mortality rate in private obstetric practice. As general practitioners, as men to whom the majority of women trust their lives during the lying-in period, as individuals who have charge of the majority of the new-born, it is our duty and our privilege to emulate hospital practitioners and make private obstetric work without avoidable mortality.

"One of the most important duties of the general practitioner is to educate his clientele to understand that the physician who is to attend a woman in labor should be made aware of the pregnancy soon after it occurs; that they may be made to expect that the doctor will have a constant oversight of the patient from that time until the end of the puerperium. * * *

"Among the duties of the physician before labor are the following: 1, repeated urine examination; 2, regulation of the daily life; 3, attention to the breasts; 4, abdominal examination; 5, measuring of the pelvis in primiparae; 6, instructions to the woman as to preparation for the lying-in period.

"EXAMINATION OF THE URINE.—This is constantly neglected, much to the detriment of many patients. Its neglect often causes the sacrifice of their lives, and I thoroughly believe that if a pregnant woman of whose condition we have been informed, and whose urine we have not examined for albumin, is seized with a puerperal convulsion, that we are certainly morally responsible for that convulsion. Indeed, I believe that failure to periodically examine the urine of every pregnant woman whom we are engaged to attend in labor is a criminal neglect. Every woman who is pregnant should have a monthly examination of her urine for albumin and sugar, and during the last two months an examination should be made every two weeks or every week, preferably the latter." He further emphasizes the importance of urinary examinations, and gives illustrative cases.

The importance of abdominal examination and pelvimetry is carefully considered, and then he takes up in detail the technic of the management of the case during labor and the puerperium. He voices the sentiments of the best obstetric practice when he says: "If Godliness is ever second to any attribute, certainly it is second to cleanliness in the management of a labor case. The one thing we want to remember always is that we must be absolutely clean—surgically clean—and we will have relatively little trouble with what are erroneously called malaria, milk fever and various other names which are only misnomers for sepsis. I have often wondered whether the use of antiseptic solutions is an unmixed good, so frequently have I seen gentlemen simply rinse their hands with soap and water, immerse them in antiseptic solution, and be fully convinced that their hands were aseptic, that I have often wished they knew nothing whatever of bichloride of mercury and its like." He advises careful and consistent asepsis and antisepsis throughout the case, condemns the vaginal douche and finally concludes as follows: "Attention to the woman very early in pregnancy until the puerperal period is ended, before labor examination of her urine, regulation of her habits, knowledge of the size of the pelvis, knowledge of the presentation of the child, during and after labor surgical cleanliness, such cleanliness as can only be thoroughly learned by observation in the operating room of a hospital."

WILLIS.

THE TECHNIC OF THE OPERATION OF CELIOTOMY AS PRACTICED AT THE GYNECEAN HOSPITAL, WITH THE REPORT OF NINETY-THREE CONSECUTIVE CELIOTOMIES WITHOUT A DEATH. (Dr. Henry D. Beyea, American Medicine, March 7, 1903.)

Beyea gives in detail the operative technic in the Gynecean hospital. All cases except emergencies are given preparatory treatment of rest, etc., of from three days to a week, during which time the blood and various secretions are examined and a careful diagnosis of the gynecologic disease is made. To do this a pelvic examination is made of the patient on entering the hospital, and then again the day before operation, when the patient is more relaxed and the bowels are empty.

He gives the following directions for sterilization of the hands of the operator, assistants and nurses: "They enter the operating room some time, certainly a half hour, before the operation, dressed in sterile clothing, with sleeves rolled up almost to the axilla. Running hot filtered water in a sterile baby's bathtub (as hot is the hands will bear) is employed for preparing the hands and arms. Ivory soap is used, because it is penetrating and least apt to cause chapping. A stiff bristle surgeon's brush, sterilized by boiling three minutes, is employed for scrubbing the hands. The finger nails are kept pared down as far as possible, so that no dirt can collect beneath the nails. The edges of the nails are kept round and smooth. The tissue covering the base of the nail is pushed back sufficiently to secure cleanliness and prevent excoriation. The hands and arms are scrubbed hard, energetically and continuously for twenty minutes—often longer—until the patient is etherized and placed upon the operating table. I believe there is a strong personal factor in the degree of cleanliness gained by this scrubbing. The soap is repeatedly washed off and renewed. The water is also constantly renewed and kept hot. Particular attention is paid to scrubbing beneath and about the finger nails, about the wrists and folds of the hands, not escaping the surfaces between the fingers. The scrubbing is often continued until the skin is slightly macerated, like that of a washwoman. In the midst of the scrubbing, after ten minutes, the surfaces beneath the nails and at the base of the nails are lightly gone over with a metal nail cleanser, which stirs up and makes more easy the separation of the bacteria, that are so apt to be found here and are removed by renewing the scrubbing.

The hands and arms are then scrubbed free of soap, immersed for two minutes in a saturated solution of potassium permanganate, at a temperature of 110° F., then decolorized in a hot saturated solution of oxalic acid and then immersed and scrubbed in a hot solution of mercuric chlorid (1-1,000)."

Preparation of the patient, dressings, ligatures, sutures, water, instruments, apparatus, and operating room is very thorough and in close keeping with the above preparation of the hands of the operator. During the operation he says no door is opened and no person allowed to leave the operating room until the abdomen is closed and dressings applied.

In regard to discipline in the operating room, he says: "The personal asepsis and the asepsis of every detail of the technic are continually watched and criticised. The work is systematically divided among the assistants and nurses, and each attends strictly to his or her own duty and nothing else. The early presence of the assistants and nurses at the operation is insisted upon, the rule being that they must be in the operating room a half hour before the beginning of the operation. No one is allowed to touch anything that has not been sterilized. It is the rule to consider no part of the technic "good enough"; every assistant and nurse is made to feel seriously the responsibility of their position, and in their daily duties to be ever conscious of this responsibility and avoid personal infection.

The avoidance on the part of the operator, his assistant and nurses of ocming in contact with infectious cases, the wearing of rubber gloves, and these with care when examining such cases, the assurance in this way that no pathogenic bacteria are being carried on the hands, we deem of the first importance in maintaining the best technic."

He justifies this very thorough technic by the report of ninety-three consecutive celiotomies without a death. WILLIS.

MENTAL AND NERVOUS DISEASES.

Edited by
G. H. MANCHESTER, M. D., J. B. LOUGHARY, M. D.,
New Westminster. Seattle.

CEREBRAL LOCALIZATION AND JACKSONIAN EPILEPSY. (The Journal of Mental Pathology, 1903.)

In recent numbers of the "Progres Medical," several members of the French school have been reporting cases of brain disease the symptoms of which would tend to upset the present theories of cerebral localization.

M. Dieulafoy presents an interesting study of a case of Jacksonian epilepsy due to a syphilitic gumma not of the Rolandic but of the frontal zone.

M. Lepine mentions two cases. The first a woman who suffered from major convulsive attacks, with small convulsive spells of the fingers and forearm and rigidity of the arm, but without loss of consciousness. The autopsy revealed an entire integrity of the Rolandic substance; the lesion was located in the first right frontal convolution and was an old cystic abscess. The other case was a chronic syphilitic suffering from Jacksonian epilepsy in both arms. At the autopsy symmetrical gummata were found, not in the Rolandic area, but in each of the first frontal convolutions.

MM. Faguet and Lowitz had a case of Jacksonian epilepsy in which the attacks always set in by convulsions in the left hand. At the autopsy the Rolandic area was intact but a syphilitic gumma was found in the posterior third of the second right frontal convolution.

Chipault, Lelinay, Hitzig, Aldibert and Henschen all report similar cases, where diagnosis was made of tumor in the usually recognized motor area, but where autopsy revealed the fact that the entire trouble existed in the frontal lobes.

The question as to whether the theory of brain localization is shattered by these records is to be considered.

M. Dieulafoy concludes that until there is further evidence to the contrary, one must admit the existence of Rolandic and frontal Jacksonian epilepsy absolutely comparable, and that although the former is the more frequent in occurrence, the latter is nevertheless not rare. At present there is no sign by which they can be distinguished.

From a surgical standpoint this is most important, as it becomes a serious matter in the case of the necessity of trephining; considering the clinical facts, we are apt to indicate the wrong cranial spot where the trephine should be applied, as is seen from the instructive cases of the above authors.

MM. Pitres and Champiniere think that when the patient retains his consciousness during the attacks, and when the latter are followed by monoplegia, the diagnosis of a Rolandic lesion is very apt to be correct. MANCHESTER.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM. Part 2: MEMBRANEOUS CATARRH OF THE INTESTINES (COLICA MUCOSA). (By Prof. Dr. Carl von Noorden. Authorized American edition. Translated under the direction of Boardman Reed, M. D. 64 pages—50 cts. E. B. Treat & Co., N. Y.)

This is an original exposition concerning the etiology, pathology and treatment of a peculiar and exceedingly interesting, though not uncommon, disorder. It is one which has proved the bane of many a general practitioner's life. Osler says of the trouble: "The treatment is very unsatisfactory; drugs are of doubtful benefit." On the other hand, von Noorden, in the report of seventy-six cases treated by his method, by himself and colleagues, shows that sixty patients were wholly cured, twelve improved and only four resulted in complete failure. Chronic constipation is considered the etiological factor, but there must be in addition "excessive irritability and overactivity of the glands of the large intestines that produce mucus," due to nervous causes, as the disease occurs almost exclusively in neurotic persons, while autopsies have shown no evidences of inflammation of the mucosa in many cases of mucous colic. The cure of mucous colic is synonymous with the cure of chronic constipation, plus the nervous weakness. The mucous exudation in mucous colitis remains so long in the bowel, on account of the constipation, that it becomes dehydrated and clings to the mucous membrane with such tenacity that only the most violent peristalsis will dislodge it; hence the colic and the following temporary relief from pain until the condition recurs. On beginning treatment high injections of oil, followed by water, are given to remove mucous accumulations, using at the same time opium and belladonna to prevent pain and spasm. After a few days of this treatment, preferably in a sanitarium, the essential dietetic methods of using coarse food is begun. The theory is to employ foods leaving a large quantity of indigestible residue in the bowel and it is directly opposed to the older methods of milk-feeding, both in hypothesis and results, as we have noted. Graham bread, fruits and fruit syrups, leguminous vegetables, potatoes, cream, butter and fat bacon are particularly advised, together with massage of the colon, the use of electricity and saline mineral waters. These are considered in the most satisfactory detail. After the first two to four days of treatment the stools regain normal consistency and appearance, and the patient's disturbances are things of the past, although the treatment must be continued for some time. The results of von Noorden are convincing, and as it was seven years after first practicing his method before he published it, and now is twelve years since he used it successfully, others have had time to bear record to the greater efficiency of the new treatment. Such skill, care, patience and thoroughness in research as are exhibited by von Noorden cannot fail to excite our admiration. He is an exponent, in his person, of the highest type of specialism we have in medicine today—the generalist—not so uncommon in Germany. The man who, devoting his life, soul and body, to his work, masters all the specialties in medicine in turn, and then devotes his attention to diagnosis and internal medicine.

WINSLOW.

THE INTERNATIONAL MEDICAL ANNUAL. (A Year-Book of Treatment, 1903. 712 pp, $3.00; 8¼x5½ in. E. B. Treat & Co., N. Y.)

This well-known work is entering the twenty-first year of its usefulness, which argues favorably for its reaching a good old age, as literary existence is even more susceptible to infantile mortality than are infants themselves. The book begins with a therapeutic review of 1902 by Hobart Amory Hare, and is followed by two articles on "High-Frequency Currents" and "Light Treatment" and "Electro-Therapeutics" by Macintyre and Rockwell. Then follows a general review of medical and surgical progress, more particularly relating to treatment, and representing the summary of articles appearing in all (600) the principal medical journals of the world. Among special articles of note are Surgical Treatment of Cirrhosis of the Liver, by Murrell, of London; Diseases of Egypt, by Sandwith, of Cairo; Diagnosis of Hip-Joint Affections, by Tubby, and Jones of Liverpool; The Sanatorium Treatment of Phthisis, by Kellynack, and Loomis of New York; The Radiography of Urinary Stone, by Fenwick of London; and Sanitary Science, by Priestly of London. The book is well illustrated, as usual, in plates in black and white and colors. Altogether it is the best work we know of the kind, considering its alphabetical arrangement, convenient size and moderate cost.

WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR MARCH, 1903.

SMALL POX.

	Cases.	*Deaths.*
Blaine	5	0
Colfax	15	0
Kelso	1	0
Laurel	1	0
North Yakima	6	0
Ritzville	2	0
Seattle	3	0
Spokane	19	0
Tacoma	4	0
Walla Walla	30	0
Total	86	0

Hereafter this report will include other contagious diseases and will be made as complete as possible.

NORTHWEST MEDICINE

May, 1903.

ORIGINAL CONTRIBUTIONS.

LESSONS FROM THE LIFE OF PASTEUR.*

By John G. Clark, M. D.,
PHILADELPHIA, PA.
Professor of Gynecology in the University of Pennsylvania.

The usual addresses to graduating nurses largely consists of kindly advice and instruction as to what they should do and what they should avoid. Such addresses can be of little value, for if the nurse, in her three years of training, has not shown sufficient tact and innate good sense to conduct herself properly when she has entered upon her professional career, she will not benefit by such commencement advice, for, like the physician who does not possess the ability to tactfully discriminate between the proper and improper way of dealing with his patients, she will, likewise, make a complete failure of her work. Nurses, like physicians, are born and not made by set rules laid down by their instructors.

In the nurse's daily work, in the operating room and in the ward, she has been taught certain principles bearing upon surgical technic, and it is probable that even among the most intelligent and best informed graduates, but few will have any conception of the basis and upon what discoveries these scientific working principles have been evolved. It will, therefore, not be out of place to consider the work and discoveries of Pasteur, upon which many of the chief precepts of modern medicine and surgery are established. In reviewing the biography of Pasteur, which shows from his first working days to the close of his life, a highly constructive ability, which has worked for mankind such beneficial and far-reaching results, I at once recall the life of Napoleon, who, likewise, was a genius, but whose work was always fearfully destructive. As a contrasting figure, therefore, the life of the latter may properly be referred to, for while he showed the most commanding martial genius which the world had beheld since the days of Caesar, it left in its train misery and death. In the execution of his plans there was a ruthless slaughter of hundreds of thousands of individuals, representing the very quintessence of manly blood, brawn and brain in France and her neighboring nations. His career was based solely upon a selfish desire to advance himself to a dictatorship of the world, and the most colossal sacrifice of human life counted as naught in the balance against this all-mastering ambition. In the end, however, Napoleon received the scathing penalty upon this earth for his fearful deeds, and from his imperial heighths we follow his history to its end in 1821, when, after a hell of torturing mental distress and the racking physical agony of a malignant disease, his crushed spirit escaped from its prison during the blackness of night, when a wild storm drove the angry waves thundering against the rocky shores of St. Helena, and the raging Atlantic hurricane shook the island to its center. "This life proves that however high men may build their Babel tower in this world, it must fall before it reaches heaven."

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*Commencement address given before the graduating class of the Nurses' Training School of the Hospital of the University of Pennsylvania.

France, with her war banners draggled in the dust, disrupted by civic upheavals, degraded in the eyes of her sister nations, was paying bitterly for attempting to uphold her idol. The turbulent night which had seen this sinister spirit of Mars quit its earthly tabernacle was the proverbial darkness before the dawn. France owed her sister nations a much greater debt than she could ever pay by maternal tribute. Not only were her best sons dead, leaving behind sorrowing mothers and wives and helpless children, but all of the territories which Napoleon had invaded had suffered even more bitterly from the ravages of war.

But while this appeared an impossible task, in the very next year Louis Pasteur was born, and if we could scan the immortal records of life and death we should see that the benefits accruing to humanity from his discoveries would more than compensate for Napoleon's devastation.

In contradistinction to Napoleon's selfish ambition, which left such irreparable misery in its train, quite early the young Pasteur showed that he was to be guided by the greatest thing in the world, Love, and was to seek for the essence of all that is good, Truth.

Perhaps none of the graduating class, and but few of my auditors know that the greatest strides of the new era of medicine and surgery are directly traceable to the far-reaching discoveries of this master mind.

Let us attempt to estimate our debt to Louis Pasteur. His parents, although in the humble walks of life, his father being a tanner, nevertheless had the highest ideals for their children. Ideals, not of the worldly type, but educational ideals, and when young Pasteur began to show a keen avidity for an education, his simple tanner father, fully endorsed by his noble wife, strained every point and made every sacrifice to enable their son to achieve his heart's desire. Little did they realize that in thus contributing to their son's ambition they were assisting in the most perfect refinement of a mind of far-reaching amplitude.

In the developmental period of every boy, a teacher, a book or some great man's character is likely to become his model. Good books were always Pasteur's delight. In his eyes a good book was a good action constantly renewed; a bad one, an incessant and irreparable fault. A book by Joseph Droz was one of his most cherished possessions. Droz's moral doctrine was that vanity is the cause of wrecked and aimless lives, that moderation is a form of wisdom and an element of happiness, and that most men sadden and trouble their lives by causeless worry and agitation. Pasteur, in a commentary to his father on this book said, "I have never read anything wiser, more moral or more virtuous." This speech was not the mere vaporings of a sentimental boy, but was the reflection from the deep impressions made upon his soul. The mission of Droz's book was the inculcation of the principles of kindliness, patience, charity and all the good of which a pure literary conscience may conceive. In other words, as summarized by Pasteur's biographer, Christ's words, "Love ye one another," expressed briefly this young boy's guiding precept.

From his provincial schools he advanced, step by step, always commanding the respect and admiration of his instructors until he reached the great goal of his youthful ambition, his entrance into the Ecole Normale, the great government school, where he came under the powerful influence of a master chemist and teacher, Dumas, and at once became his enthusiastic disciple. Under this inspiration he desired even more ardently to delve into the hidden secrets of nature and to devote his life to research. Here, then, was the cherished desire, the mainspring of a life which was not to be distinguished by one great deed, but was to be filled to repletion by discoveries which were to work greater good for humanity than those of any man from the dawn of civilization to his own time.

His inaugural theses, which gave him his doctorate, were of scientific value, but it required six more months for him to complete studies in crystallography, which are really of epoch-making value. This paper at once commanded the attention of French chemists and physicists, for he had apparently solved a problem which had mastered the great German chemist, Misterlich. At first his theories were looked at askance, but after irrefutable proof, Biot, the great French scientist, accepted his conclusions without reservation, and with bubbling enthusiasm exclaimed: "My dear boy, I have loved science so much during my life that this touches my heart."

Through all of his work, his profound veneration, love and adulation of his parents remained, and to them he opened his heart concerning all of his triumphs and discouragements. On the other hand, both his father and mother idolized him, and in a letter from his father about this time he says, "We received your letter yesterday; it is absolutely satisfactory, but it could not be otherwise coming from you, you have long, indeed ever, been all satisfaction to me." Now that the great scientific world had turned their eyes upon him, each new research was eagerly noted and we find him advancing with considerable rapidity. In his twenty-seventh year he was made an assistant professor of chemistry in the University of Strasburg. Among his teachers and colleagues in Paris he was looked upon as a genius who was likely to achieve great things, but he himself was ever modest, and constantly thought of his deficiencies rather than dwelling upon his past achievements or the possibilities of future glory. In sharp contrast to young Napoleon who, when France's attention was first called to him as a great victor because of the masterful skill shown in his Italian campaign, vaingloriously said, "I saw what I might become. I already beheld the world beneath me, as if I were carried through the air," Pasteur, on the other hand, after having been lauded as a remarkable genius, said after his first lectures in Strasburg, "They were anything but good, but I think the subsequent ones were more satisfactory, and I feel I am improving." About this time this sedate young man, who had dedicated himself to science, and had so firmly decided to live singly and wholly for his calling, became deeply distracted by a sensation, which although new to him, was as old as Adam, and we find him ardently ad-dressing the daughter of Laurent, his old preceptor, and here he speaks for himself in the following words, "All that I beg of you, mademoiselle, is that you will not judge me too hastily, and therefore misjudge me. Time will show you that below my cold, shy and unpleasing exterior there is a heart full of affection for you." But still feeling that in this new love he had forsaken his old, he almost apologetically and remorsefully says, "I who did so love my crystals." In this marriage, however, he regained all the affection and inspiration which had come from his mother, who had a short time before died. With all of his resourceful assiduity he pushed forward his investigations, never content with the completion of one, but always having as his motto, "Onward." "Between domestic happiness and prospective researches Pasteur's life was complete." While his wife seconded and enthusiastically entered into all of his plans, ever giving herself a second place by spelling science with a capital S, nevertheless, we must conclude that either in fear of his overwork, or possibly in a faint spirit of jealousy (I use the term advisedly in the face of this audience), she must have offered a protest, for in a letter to an old friend Pasteur says, "I am often scolded by Mme. Pasteur, but I console her by telling her that I shall lead her to fame." In deference to his wife's beautiful character we must conclude that this was an affectionate chiding entirely in his interest, for we ever find her his confidante, his collaborator, active as his secretary, and watching over the invaluable health of which he was all too negligent. Were not the evidence of his devotion most convincing, a fear of unfaithfulness might arise when we find him taking a long journey to Germany in search of a missing link in his researches in his beloved crystallography. La Verite, a Paris paper, in commenting upon this journey in its effusive and sentimental French style, concludes: "Never was treasure sought, never adored beauty pursued over hill and vale with greater ardour." In his daily letters to his wife, there is no shadow of turning, for in his eyes she was evidently the most perfect of crystals. As a result of these researches he won the red ribbon of the Legion of Honor. So far, none of his work had carried him out of the domain of pure science, but the nature of his researches and his painstaking observations were preparing him for the great epochs which were to follow. Interesting as are all the phases of his life, this occasion does not permit me to make a minute review of them.

(TO BE CONCLUDED.)

PUERPERAL MASTITIS; ITS PREVENTION AND TREATMENT.*

By William C. Heussy, M. D.,
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Of recent years, thanks to the improved management of obstetric cases, puerperal mastitis is comparatively rare. The latest statistics give 5 to 6 per cent., but with proper preventive treatment there is no occasion for its occurrence. At the Sloane Maternity Hospital in New York, in over 3,000 confinements, which occurred during the years 1897-98 and 99, there were only two cases reported.

When engaged to attend a woman in an expected parturition it is the physician's duty to examine the breasts, to take notice as to their size, whether small, medium or large; their form, the development of glandular tissue, first and second areola, new and old striae, shape and size of the nipples; if any lesions exist, and if colostrom is present. The physiological perfection of the nipple is a matter of extreme moment not for the mother only, but for the health of the infant. Lack of development offers an obstacle to the emptying of the breasts, while the effort of the child to suckle excites the mammae to active secretion; as a result there will be retention and engorgement. Inversion of the nipple is not uncommon and is usually due to pressure from the corset or tight clothing. Badly formed nipples are more apt to be injured than those well developed. Lesions of the nipples bear an etiological relation to mastitis, being a common source of septic invasion.

General hygienic directions should be given to the patient for the care of the breasts during pregnancy; she should be instructed as to her dress, ample room should be given for the development of the breasts to prepare them for the coming function of lactation. Lack of cleanliness conduces to an unhealthy condition, and absolute cleanliness will preclude inflammation.

The essential factor in mastitis is sepsis. Infection is the cause, and from the very beginning of pregnancy, during the puerperium and through the lactation, if close attention is given to cleanliness of the nipples and measures taken to maintain their epithelium intact, the great factor in the prevention and treatment of puerperal mastitis is fulfilled. During the latter weeks of pregnancy the nipples should receive daily ablutions with cold water; they should be massaged every day by the fingers and be annointed with solid albolene so as to soften them. Astringents should never be applied to cause hardness. If the nipple is invaginated, attempts may be made to draw it out with the fingers. Should any colostrom be present it should be removed by bathing the nipples with sulphuric ether. Colostrom allowed to remain hardens and forms a crust which, when torn away by the nursing child, detaches the delicate underlying epithelium and an avenue for infection remains.

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*Read before the King County Medical Society, Seattle, Wash., April 6, 1903.

In the puerperium the child's mouth and the mother's nipples should be washed before and after nursing with solution of boracic acid; everything about the breasts should be clean. Attention should be given to the cleanliness of the clothing, and before handling the breasts or nipples by mother or nurse the hands should be carefully washed. In the intervals between nursing, the nipples should be protected with sterile gauze. Owing to the maceration and loosening of the epithelium from the oozing of the colostrom, suckling of the child is followed by the formation of small vesicles which rupture and produce erosions. These simple excoriations may be converted into ulceration with deep destruction of tissue. When the mother complains of pain, while the child is nursing, the nipple shield should be used for a few days. The child not suckling the nipple itself allows it to rest, healing takes place and its surface becomes sound. In the majority of cases, using the shield will be all that is necessary; if not, there must be some fissures present. Examine the nipples with a small hand magnifying glass and if there is a crack or excoriation present 8 per cent. solution of nitrate of silver should be applied before and after nursing. The solution of silver will contract the superficial lymphatics, forming a coating which protects them from infection. When the fissures are deep and large, use the stick caustic.

Should there be distention and hardening, the milk should be helped along by massaging the breasts for fifteen minutes every four hours. Massage relieves the pain and tension. Four manipulations are necessary; first, tittilation, light movements toward the nipple with the tips of the fingers annointed with solid albolene; second, support one side and rub the other; third, circulatory rubbing; fourth, compression. When there is a great deal of distention present give a saline enema and one ounce of Rochelle salts every hour for three doses; saline cathartics diminish the hyperemia of the breasts. Also apply the ice bag which acts as a sedative and antiphlogistic. Dry diet should be observed and extra nursing provided, but if that cannot be had, use the breast pump. The breasts being raised and supported by a suitable bandage, together with the ice bag, usually suffices to prevent the formation of pus.

When fever is present mastitis exists as a complication and infection has taken place through an unclean lesion. Quinine is then to be given in large doses and if suppuration has taken place an early free antiseptic incision and drainage must be employed; poultices should not be applied; an ointment of camphor and belladonna as a local application will give much comfort. The breast should be well supported and pressed against the chest by a bandage, and opium given for the relief of pain.

THE VALUE OF LEMON JUICE AS A PROPHYLACTIC FOR TYPHOID FEVER.

By Wallace Johnson, M. D.
WASHINGTON, D. C.

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There has recently been a great deal of newspaper medicine exploiting the value of lemon juice as a prophylactic against typhoid fever. These accounts make the Chicago Board of Health authority for the statement that infected water may be taken with impunity if only a small amount, 1 per cent., of lemon juice is squeezed into a glass of water at the table. Or infected oysters may be eaten without harm if first flavored by a few drops of lemon juice. If these statements are not true, great harm may result from their widespread publication. By leading the general public into a false security, many cases of typhoid may be created which a little real prophylaxis would prevent. Not only does the daily press spread these notices, but even reputable medical journals give them space. And medical wiseacres who wish to be abreast of the times, come out with letters to medical editors saying "I told you so."[1]

Since so much attention has been given to the use of lemon juice, for safety in regions where the water supply is suspicious, it seems but proper to publish a few experiments, made at the suggestion of General Sternberg, to test the efficiency of the juice of the ordinary lemon of the market. On purely theoretic grounds, the teaching above mentioned seems dangerous, to say the least. Lemon juice contains as its main antiseptic ingredient citric acid, with small quantities also of phosphoric and malic acid. Gould & Pyle say, "Lemon juice contains about 7 per cent of citric acid."[2] Potter says, "Lemon contains about 7 per cent of free citric acid, besides phosphoric and malic acids."[3] Simon says, "100 parts of lemons yield about 5 parts of citric acid."[4] The United States Dispensatory says there are from 10.6 to 13.5 ounces of free citric acid per gallon of lemon juice.[5] From these statements of its composition then, it would appear that less than 10 per cent. of the lemon juice can be active as a disinfectant. Long ago the disinfectant value of citric and other fruit acids was worked out by Abbott in Sternberg's laboratory and the results published in Sternberg's Manual of Bacteriology. Sternberg says of citric acid: "The bacillus of typhoid fever is killed in five hours by 0.43 per cent, etc."[6] Of malic acid, "This was found by Kitasato to correspond with citric acid in germicidal power."[7] Of phosphoric acid, "Exposure for four or five hours to a solution containing 0.3 per cent destroys the typhoid bacillus, etc."[8] Taking the germicidal activity of citric acid at 0.43 per cent and the acid contents of lemon juice at 10 per cent, we would expect lemon juice in a solution of 4.3 per cent strength to kill typhoid bacilli in four or five hours. This is a very different proposition from the newspaper statement of disinfection while you eat your meal by the addition of 1 per cent of the juice, or a half teaspoonful to a glass of water.

The following experiments were made using lemons bought in the market from different dealers:

EXPERIMENT NO. 1.

Sterile bouillon	5 c. c.	5 c. c.	5 c. c.	5 c. c.
Typhoid culture	1 loop full	1 loop full	1 loop full	1 loop full
Lemon juice	0.1 c. c.	0.5 c. c.	1.0 c. c.	5.0 c. c.
Percentage	2%	9%	16%	50%
After 10 minutes	Growth	Growth	Growth	No growth
After 20 minutes	Growth	Growth	No growth	No growth
After 1 hour	Growth	No growth	No growth	No growth
After 24 hours	Growth	No growth	No growth	No growth

Sterile bouillon was infected with typhoid and lemon juice added in definite proportions, at the end of stated intervals a loopful of the mixture was inoculated onto slant agar and the tubes incubated at 37°C. with the results above tabulated.

This experiment showed that a strength of lemon juice equal to 50 per cent of the whole solution killed the germ in less than 10 minutes, or at least inhibited this growth on the surface of the agar. But then even in so strong a solution as 9 per cent, the bacilli were still ready to increase after 20 minutes and in a 2 per cent solution even after 24 hours. The experiment was tried again with lemons from a different stand, and using bouillon instead of agar for the test medium.

EXPERIMENT NO. 2.

Bouillon	5 c. c.	5 c. c.	5 c. c.	5 c. c.	5 c. c.
Typh. culture	1 loop full	1 loop full	1 loop full	1 loop full	1 loop full
Lemon juice	0.1 c. c.	0.2 c. c.	0.3 c. c.	0.5 c. c.	1.0 c. c.
Percentage	2%	4%	6%	9%	16%
After 10 mins.	Growth	Growth	Growth	Growth	No growth
After 15 mins.	Growth	Growth	Growth	Growth	No growth
After 1 hour	Growth	Growth	Growth	No growth	No growth
After 20 mins.	Growth	Growth	Growth	Growth	No growth
After 24 hours	No growth	No growth	No growth	No growth	No growth

In this experiment the lemon seems to have possessed more acid than in the first, for a 16% solution caused death within ten minutes. But yet a 9% solution gave a growth after 20 minutes and a 6% solution after an hour, more than the length of an ordinary meal, and a quantity equal to three teaspoonsful to an ordinary glass of water.

It is not the purpose of this paper to destroy idols merely to destroy, but to warn against a false sense of security. That typhoid fever can be safely avoided by treating a contaminated drinking water in a very simple manner is true, but the safe manner is by means of heat. The typhoid bacillus is very susceptible to heat. On this point Sternberg says: “In the writer's experiments (1887), the thermal deathpoint of the typhoid bacillus was found to be 56°C., the time of exposure being 10 minutes; and potato cultures containing the refractive granules described by Gaffky were found to be infallably destroyed by a temperature of 60°C.”[9].

A few experiments were made with heat as follows:

EXPERIMENT NO. 3.

A tube of bouillon culture was exposed to a temperature of 60°C. in a water bath and inoculations made from it at intervals of two minutes. These tubes were then incubated at 37°C. with the result of no growth in any tube.

EXPERIMENT NO. 4.

This consisted in infecting several tubes of sterile bouillon with typhoid bacilli and then exposing them for five minutes to various degrees of heat and afterwards incubating at 37°C.

	Tube 1	Tube 2	Tube 3	Tube 4	Tube 5	Tube 6
Exposed to heat of .... For 5 mins.	53°	54°	55°	56°	57°	58°
Result	Growth	Growth	Growth	No growth	No growth	No growth

Experiment No. 5 consisted of merely heating up a bouillon culture in a test tube to the boiling point and at various degrees of temperature a loopful was transferred to a tube of sterile bouillon and this incubated at 37°C. The first transfer was made when the thermometer in the water bath recorded 60°C., and after that at each 5 degrees increase. The result was that no growth occurred in any tube, showing that by merely raising the temperature to 60°C.=140°F., all of the bacilli were killed. It is shown then that by merely bringing a contaminated water to the boiling point or even many degrees short of that point, there is absolute safety in its use. It need not be made unpalatable by having the air all boiled out and very little time need be taken in its preparation. The conclusion is that lemon juice in any proportion that is palatable must be left to stand much longer than an ordinary mealtime to be of any prophylactic virtue, and on the other hand, a very short heating will thoroughly sterilize infected water. To create a false idea of security from the use of so feeble a disinfectant as lemon juice proves to be, may be the means of producing many an epidemic and result in much sickness and death that could easily be avoided by proper prophylaxis.

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CHRONIC RHEUMATISM.*

By L. R. Markley, M. D.,
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The etiology of chronic rheumatism is still an unsettled question, the uric acid theory having more supporters than any other. The germ theory does not obtain to the same extent that it does in the acute form. The theory that it is a neurosis of some kind not yet understood, is held by some.

The disease appears to be equally prevalent in all parts of the United States. The vegetarian tells us to reform our diet and quit eating meat. Another man tells us to go to a warm, dry climate. These theories are untenable; in California, New Mexico and Arizona, the land of sunshine, vegetables and fruits, the disease is as prevalent as in the more rigorous sections. All the Polar explorers tell us the disease is practically unknown in the far North. How the vegetarian can explain the fact of a meat and oil diet of the Esquimos, who do not have rheumatism, I do not know. It is a fact that chronic rheumatics who went to Alaska during the first great gold rush, were quite free of their aches and pains until they returned to their homes. I do not know if the opposite extreme of temperature along the equator is as free from rheumatism as the Arctic regions. Personally, I do not think what we eat has much to do with this disease.

I am inclined to think that the habitual users of alcoholics are more prone to rheumatism than the total abstainers. Atmospheric changes are readily foretold by the great majority of chronic cases.

The patient who has chronic rheumatism will often provoke his case by some error in diet. Many patients cannot give us any tangible cause of their affliction, primarily, nor of the frequent exacerbations that forever torment them.

I have examined the urine in a great many cases, and I must admit there is little or no uniformity in the findings. I am inclined to think that the causative factor is not the same in all cases. I believe, however, that toxemia—autoinfection—is the real cause in a very large proportion of cases. You will recall that I ascribed to toxemia the cause of acute rheumatism. Just why one case is acute and another chronic, I am not prepared to offer a suggestion. It is more than possible, however, that there is some chemical difference in the poisons that cause so many different manifestations of the disease. The cause of this toxemia may be one thing in one case and another in the next, and as the cause is, so may the ptomaines be. To make myself and my theory plainer: Mr. Smith has chronic articular rheumatism, or synovitis, if you please. In his case it is caused by imperfect digestion of the proteids. This causes a putrefaction, or, if you prefer it, certain chemical changes to take place in the intestinal tract. This causes the formation of a distinct chemical product or substance which we will call a ptomaine. This ptomaine has a special effect in the case of Mr. Smith. In another man it might have a different result.

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*Read before the Whatcom County Medical Society, Whatcom, Wash., April 6, 1903.

Mr. Jones has chronic muscular rheumatism. In his case, it is caused by imperfect digestion of the carbohydrates. Again ptomaines are formed, and Mr. Jones is suffering from a different kind of poison, the effects being slightly different from the case of Mr. Smith. I fully believe that every case of chronic rheumatism is a case unto itself, and that the cause is an autoinfection or toxemia.

If the ptomaines were the same in every case—I mean in chemical composition, we could not reasonably expect that the effects would be the same in every patient, no more than we get the same effects from drugs in all cases. The chances are, however, that there are a great many kinds of ptomaines, all having distinct chemical reactions and compositions, hence affecting our bodies in innumerable ways. I have no doubt that a great many cases of so-called typhoid fever that run a short course, are cases of toxemia. In the acute cases of gastro-intestinal troubles, and in some chronic cases as well, in children and adults, toxemia often plays an important part.

It will thus be seen that I place but little faith in the uric acid or neurotic theory of rheumatism in any form. It would appear that the greater the pain and inflammation, the higher the temperature rises. I am inclined to think if we could introduce a very sensitive thermometer into the parts affected with chronic rheumatism, it would register a very slight rise of temperature. It would, indeed, be very interesting to know in what way, chemically, the poison of acute rheumatism differed from the chronic.

I have recently read an article in a journal, in which the writer is a strong believer in the ptomaine theory; he believes that the urates are a result and not the cause of the disease. This is a new thought, and worth our while to think about.

Let the cause be what it may, chemists will find it some day; but to us, as active practitioners, the patient applies for relief. If we can correct any apparent pernicious habits, or errors of diet, it is our duty to do so. The majority of our patients, however, expect us to relieve them with drugs; they do not take kindly to advice.

The drugs that have been given in chronic rheumatism are legion. If I were confined to two remedies and could use no others, I would unhesitatingly select iron and colchicum. Colchicum is a splendid eliminator; it acts finely on the liver, which I hold is very important. The patient should take it in ascending doses until he has at least two good stools daily. Then hold him there a long time. I prefer the alkaloid, colchicine. Iron is a good builder, and should be given in every case of rheumatism, acute or chronic. It is a fact that rheumatism is very destructive to the red blood cells and hemoglobin—another proof, I think, that the disease is caused by some kind of poison.

A very good combination, and one that I have used a good deal, is sodium salicylate, potassium iodide, colchicum and nux vomica.

Magnesium sulphate and sodium phosphate, long continued and in small doses, are most excellent remedies.

I presume you have noticed that what has benefited a patient at one time, may not benefit him again. This is a curious anomaly.

I think the liver and stomach need more attention than the kidneys.

The Betz hot-air bath is having quite a run just now. I should think it would limber up old, stiff joints.

As to diet, I don't think there is much in it. I do think, however, that these patients should eat much less than they do. The fact is, we all eat too much and too fast, thereby taxing our digestive organs and liver to excess.

To sum up, these patients should eat less, bathe oftener and keep the skin active; drink lots of water, dress warmly, keep out of drafts and avoid colds: keep the bowels active, urine neutral or slightly alkaline, and *take a course of iron three or four times a year.*

ECZEMA IN CHILDREN.*

By Robert W. Schoenle, M. D.

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The great chaos which formally complicated the study of eczema has been dispelled since Hebra, by a simple experiment, proved the pathological unity in its essential features of this truly protean affection. He produced by the application of croton oil to the healthy skin a so-called dermatitis and a series of pathological processes merging successively one into the other, which closely resembled the various manifestations of an acute eczema. It was thus proven that an irritation of the skin may cause the most varied clinical forms of disease.

Eczema may be defined as a catarrhal inflammation of the skin. The scope of this paper permits only the discussion of such features and varieties as are peculiar to infancy and young children, and makes no claim to completeness. The eczema of older children does not differ in any essential form from that of adults.

The conditions in infancy which predispose to eczezma are, first, that the skin is extremely delicate and hence more easily affected by external irritants and micro-organisms. Secondly, its more intense glandular activity. While all children are susceptible, there are certain ones in whom the susceptibility is more marked, and in them the slightest amount of external irritation or the most trivial disturbance of digestion may produce a severe eruption. It is true that certain infants are prone to eczema as others are to catarrhal processes of the mucous membranes, but no more can be positively affirmed.

The *exciting causes* of eczema may be external or internal. Of the former, the most important are heat, cold dry air and winds—as in the familiar chapping of the face—the use of hard water or of strong soap in bathing. The disease may be due to irritation of clothing, to want of cleanliness or to irritating discharges from mucous surfaces, as in the eczema of the upper lip, thighs or buttocks. It accompanies most of the parasitic skin diseases, particularly pediculosis, scabies and ringworm. Undoubtedly micro-organisms play an important part in may forms of eczema, but their exact relation has as yet not been definitely determined.

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*Read before the Pierce County Medical Society, Tacoma, Wash., March 31, 1903

The internal causes of eczema are chiefly associated with deficient elimination from the kidneys and bowels and digestive disturbances.

It may be produced by any form of digestive disturbance, but is especially frequent in the intestinal indigestion, which results from over-feeding or the too early or excessive use of farinaceous food, or from breast milk in which the percentage of fat is very high. In children fed upon cow's milk, excessive fat may also be the cause, or it may be due to excessive proteids. Although eczematous patients usually appear well nourished, it is rare that some symptoms of indigestion are not present.

Eczema is often due to some form of reflex irritation, among which are the cases which accompany dentition and the rare ones due to genital irritation. By many writers the eczema caused by gastro-intestinal disturbances is regarded as reflex. The stronger the disposition, the more trivial the reflex irritation which will induce an eruption.

Clinically, the disease may be divided into acute form, characterized by a sudden onset, short course and frequent recurrence of any of the conditions mentioned below, and by the chronic form which represents the more characteristic lesions of cell infiltration and thickening of the skin, scaling, fissues and ulcers. The disease may begin either as an acute or chronic process, starting as an erythema or as isolated and grouped papules, vesicles or pustules, either singly, simultaneously or in succession, resulting in redness, oozing, scaling, crusting and infiltration. The disease differs according to the region it affects, local eczema, or it may be practically universal.

In children it is most frequent on the face and scalp, but may occur on any part of the body. The disease generally begins upon the cheeks with the formation of small, red papules; later they coalesce. There is, in the acute stage, a moist, red, swollen surface, exuding serum or sero-pus, and the formation of thick, gummy crusts, which are colored dirty-brown by the admixture of blood from scratching, in response to the terrible itching. When the process is less active there are redness, thickening, induration, scaliness of the skin and marked itching. In the same cases these stages may alternate, exacerbations occurring whenever the exciting cause is particularly active.

Swelling of the lymph nodes in the neighborhood of the eruption is a constant feature of eczema of the face and scalp. These may reach the size of a chestnut or walnut and occasionally they suppurate. With eczema of the occipital region of the scalp, pediculosis is usually associated, frequently the cause of it.

Eczema of the face is very chronic, easily improved, but cured only with great difficulty. There is a strong tendency to relapses brought on by neglect of local treatment or by any digestive disturbance.

Time will prevent me to but mention by name seborrheic eczema, brought into prominence by Unna, pustular eczema of the scalp, and intertrigo, all three having their distinctive features, but still only varieties or forms of eczema.

Diagnosis of eczema is usually an easy matter. In the majority of cases the disease affects the face or the scalp, and its appearances are typical. Eczema of the body or extremities may be confounded with scabies or syphilis, urticaria, etc. Scabies and eczema both itch severely, and in both multiform lesions may be present, but in scabies contagion can nearly always be traced, and the eruption occupies certain preferential localities; furthermore, the characteristic burrow or cumulus is more readily demonstrated in the child than in the adult. Various forms of the syphilide, especially the papular and pustular, are liable to be confounded with eczema. In a general way, the specific eruption is more apt to be seen around the mouth, nose and genitals and, besides, often representing a circular arrangement. The presence of snuffles and the discovery of mucous patches are important aids to diagnosis. Moreover, syphilitic eruptions do not itch. The possibility of confounding ringworm and favus should be borne in mind.

Treatment—It is, contrary to the popular notion, never dangerous to cure an eczema, and it is always desirable to do so. To treat eczema successfully, there is required a careful study of the existing cause, for, although improvement often results, in the great majority of cases, this is only temporary. A permanent cure is brought about only by the removal of the cause, and the physician must decide whether it is external, internal, or both.

A thorough investigation into the food is necessary, not only as to its character, but as to quantity and preparation, the manner and frequency of feeding, etc. If the patient is a nursing infant, an examination of the nurse's milk is indispensable to intelligent treatment. Generally there is excess of fat; if cow's milk is used, an excess of proteids. During the latter part of the first and the entire second year, the usual error is that of overfeeding, in most cases an excessive use of solid food, especially potatoes and oatmeal. The diet which suits most children best is one composed of milk, beef juice, broth, fruit, eggs, and a little red meat, with the addition, in some cases, of rice, wheat or barley. In severe and obstinate cases all cereals and even meat are best omitted during the active stage of the disease. The form of indigestion which exists is to be managed according to the special indications in each case. The diet of older children needs to be watched no less carefully than that of infants.

Elimination of the kidneys should be stimulated. Overcoming the tendency to constipation will, in many cases, cure the eczema.

The child's general condition should be treated just as if no eczema existed. In the poorly nourished, iron and the bitter tonics are required. Theoretically, in the chronic, dry, scaly form of eczema, arsenic is indicated, but its effect is often disappointing in infancy. It is in no sense a specific remedy.

The general management of cases is important. The skin must be carefully protected by an ointment whenever the child is in the open air; if the weather is very cold, or there are high winds, children with active eczema should not go out, but take the fresh air indoors. Where washing becomes necessary, it may be done with bran water, milk and water, or starch and water, to which a teaspoonful of borax to a quart may be added, also dilute liquor alumini acetatis. The clothing should not be so excessive as to keep the child constantly in a perspiration.

With eczema of the face it is absolutely necessary to prevent the child from scratching the parts. The use of a mask is not always sufficient, nor the wearing of mittens; nor is the local application of anti-pruritic lotions or ointments invariably successful. In severe cases mechanical restraint is absolutely indispensable.

Local treatment is always necessary, for not only are the causes sometimes entirely external, but the condition may persist after the original internal cause has been removed. There are several indications to be met by local treatment at different stages in the disease:

1. To remove the crusts and other inflammatory products.
2. To allay congestion and acute inflammation.
3. To relieve itching.
4. To protect the delicate new skin which is forming.
5. To prevent infection.

6. To stimulate the skin and hasten absorption of the infiltration in the chronic stages of the disease.

Preparatory to the use of any application, the scales, crusts, and other products of inflammation must be softened and removed in order that the diseased surface may be reached. In most cases soften the crusts by the use of olive oil for twelve to twenty-four hours, and then remove them by soap and water; if the crusts are very hard and thick, they can be softened by a poultice. During the acute inflammation only sedative and soothing applications should be used. One of the best is the zinc and calamine lotion, to which 1 per cent of carbolic acid may be added, if there is much itching. A piece of muslin should be dipped in this solution and applied to the affected part, being kept in place by a bandage; liquor alumini acetatis, 1 to 10 of water, may be used in the same manner.

Where the inflammation is less acute or there is much secretion, keeping the parts covered with equal parts of boric acid and starch, stearate of zinc, etc., does well. Black wash, pure or diluted, may be applied with absorbent cotton for ten to fifteen minutes several times a day, and allowed to dry on, after which a protective ointment is used. Ichthyol may be used in the same way in ½ to 1 per cent. solution Any of the above may be followed with a simple protective ointment, such as Lassar's paste, sodii salicylici gr. x., zinc oxidi, amyli, ana drachm ii, vaseline or lanoline drachm iv., or Wilson's ointment.

After the acute symptoms have subsided, nothing does so well as a combination of tar and zinc, either the old unguentum picis liquidae, diluted according to the case, or, better, one of the tar oils, rusci, cadini or fagi, in 1 per cent. to 5 per cent. ointments, combined with 2 per cent. salicylic acid. The more chronic, the greater the amount of tar. Unguentum diachyli Hebrae is very popular in Vienna. All ointments used should be spread upon muslin, and kept in close contact with the inflamed part by means of a bandage or mask. Where it is impracticable to use an ointment, Pick's paste or Elliot bassorin paste may be used, combined with tar, zinc, salicylic acid or resorcin.

The methods above mentioned are especially applicable to eczema of the face and scalp.

For pustular eczema of the scalp the best application is the white precipitate ointment or Lassar's cinnabar ointment. It is important that all diseased surfaces should be kept separated by an inert powder and cotton. This applies especially to eczema intertrigo. Unna's plaster mulls, variously medicated, are useful, especially in eczema of the hands.

In chronic cases, where the skin remains thickened, red, scaly, and itching, stimulating applications are to be used, such as tincture of green soap, tar, sulphur and more severe by a 50 per cent. solution of caustic potash, the latter with great caution and only in the most obstinate cases, and it is best followed by the application of a 50 per cent solution of nitrate of silver; lastly, curettement or excision. In seborrheic eczema, whether affecting the face, scalp or body, nothing is so generally useful as a 2 per cent. to 3 per cent. ointment of resorcin.

JOINT AFFECTIONS, THE RESULT OF INFECTIOUS DISEASES OR SEPSIS.*

By Robert L. Nourse, M. D.,
Hailey, Idaho.

In the Holy Writ, there occurs this passage "A word spoken in season, how good it is." I was just thinking that the contrary was also quite as true, namely, "A word spoken at an inopportune moment, how unfortunate it may prove to be."

Recently the writer, while awaiting his train at the "Gate City" depot, in company with our alert secretary, casually remarked upon the frequent close relationship existing between quinzy and rheumatic joint affections. As a result of that injudicious remark I am required to stand here before you and expose my ignorance upon this subject, while you are denied the privilege of listening to some one who might have done justice to the topic.

To adhere strictly to my topic, I should of course have nothing whatever to say of true rheumatic joint affections, but confine my remarks to the pseudo-rheumatic joint lesions so frequently resulting from septic processes and the infective diseases, and which simulate or are mistaken for rheumatism. However, as a part of my task will be to emphasize the differential diagnosis, a matter by no means so easy or simple, it will be necessary for me later on to review briefly the clinical picture of rheumatism, so graphically brought out by my colleagues who have preceded me.

There are a number of joint affections which may be and are frequently confounded with rheumatism, and that there exists a real need among our profession for a more thorough knowledge of these affections and more care in diagnosticating them, none will deny. Many lives are sacrificed, and many more are made cripples for life by the failure of the attending physician to recognize the septic nature of, and hence, indication for surgical treatment of many cases of multiple joint affections, so often diagnosed as rheumatic. That these mistakes occur only in the practice of our colleagues, may be true, but to err is human, and it behooves us to be informed and alert, lest one such blunder with its disastrous consequences mar both our practice and prestige

An honored and capable member of our profession residing in Ohio, once remarked concerning the results of an operation performed by him, in a nearby town, that the painstaking work of years in that town was annulled and swept away by one unfortunate result.

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*Read before the South Idaho District Medical Society, April 9, 1903.

In a discussion following a symposium on arthritis in the American Medical Association a few years ago, Dr. F. A. Packard, of Philadelphia, said "At the present time rheumatism is a term used to cover much of our ignorance. It is applied to almost any painful affection, such as neuritis, myositis, pleuritis, endocarditis, as well as various forms of septic arthritis and synovitis."

The recital of a case or two in point, may not be out of place;

Case 1. A boy of about 14 years, previously healthy, with several companions jumped from a hay stack to the frozen ground below. I believe there was also some water about the stack in which they waded. He soon fell ill with chill, fever, pains in the limbs, especially about the knee and in the long bones of one leg. The attending physician promptly diagnosed rheumatism, and administered the salicylates and other anti-rheumatics. Instead of relief, the pain gradually increased in severity, became boring, and agonizing, so that to quote his mother, "his screams could be heard for blocks." Morphine was now added to the treatment, to smother his cries and still further mask the real condition.

A consultation now was had, and the diagnosis confirmed and treatment approved. Weeks and months went by, with no improvement until finally the patient, greatly emaciated, and with life well-nigh despaired of, was taken to a distant city, where he underwent an operation for the removal of almost the entire shaft of the tibia, for extensive destructive osteomyelitis. Soon after, a thigh amputation was found necessary to save life.

Case 2. A young woman sickened with acute synovitis, presumably gonorrheal. It was diagnosed as rheumatism, and salicylates prescribed. This treatment was continued until the joint was past redemption. Only one joint was involved, no endocarditis, and no antecedent history of rheumatism.

Among other pilgrimages made in search of relief, she visits Kirksville, where, being hypnotized and rubbed into a belief in the efficacy of Osteopathy, she persuades one of Still's disciples to return with her and locate in her home town, with the assurance that there were many just as gullable as herself. The fact that she soon tired of his treatment, and later denounced it, was poor consolation to the physician, responsible for the error, whose practice was seriously cut into by the "rubber doctor." Prompt recognition of the true nature of the disease, would no doubt have spared the patient a permanently ankylosed knee and the doctor many a patient.

Other similar cases might be cited, but these will suffice to show the importance of the subject.

MULTIPLE SECONDARY ARTHRITIS may, and frequently does, follow in the course of a large number of the infective diseases and septic arthritis is not a rare sequel of any disease characterized by pyemic processes. Among the disorders that are most prone to terminate thus may be mentioned scarlet fever, gonorrhoea, cerebrospinal meningitis, puerperal sepsis, small-pox, dysentery, acute myelitis, tuberculosis, erysipelas, and our own spotted fever.

Joint affections are likewise rather frequent concomitants of chorea, tabes dorsalis, syphilis, dengue, hemophilia and osteomyelitis. Of these perhaps the first three named are the most likely to be thus followed. The arthropathies complicating these infectious and septic diseases often have, though unfortunately not always, certain characteristics either in their mode of onset or clinical features, or in the manner in which they respond or fail to respond to therapeutic measures which, if we are careful to observe, will enable us to make diagnosis.

What then is the symptom-complex of acute articular rheumatism, by which it may be differentiated? A sort of composit-definition of rheumatic arthritis combining the views of Osler, Anders, Packard and others would be, "An acute non-contageous, febrile affection, depending upon an as yet unknown infective agent, probably of micro-organismal origin, frequently preceded by sore throat or tonsilitis, and characterized by multiple arthritis, the various joints being seldom simultaneously involved, and with an especial tendency to involve the endo- and peri-cardium." And I should like to add, "in which the salicylates are almost a specific." For in my opinion, when judiciously administered, in some one of their various forms, they are as much a specific as is mercury in the therapeutics of syphilis or quinine in malaria. When the salicylates have utterly failed to ameliorate a given case after being pushed to the physiological limit, I think it is time to question the accuracy of the diagnosis.

ARTHRITIS OF SCARLET FEVER. Szontagh reports 15 cases of scarlet fever observed during one epidemic, in which there were kidney and joint complications. The cases were all grave, exhibiting severe kidney lesions, which preceded, somewhat, the joint affections. In each instance the arthritis was ushered in by high fever. It always appeared late in the disease, varying from the fourth to the seventh week. Not one of these affected joints terminated in suppuration. In some cases only one joint was involved, in others the lesion was multiple. The ankle, wrist, and knee suffered most frequently. The reporter believed the arthritis was the result of the poison which produced the infection, or its toxins, and not due to metastatic dissemination.

A case which the writer saw last summer, coincides with the above.

The patient, a young mother, with a nursing infant, contracted scarlet fever, which ran a rather mild course of one week, and was subsiding, when what appeared to be well defined rheumatic arthritis supervened. The complication was multiple, first the wrists being affected, next the knees, and lastly the ankles. These were very favorably influenced by the salicylates. There was slight endocarditis co-incident with the arthritis.

In the humble opinion of the writer the arthritis complicating scarlet fever is a true rheumatic affection, and he hazards the guess that it will eventually be found to be due to the same specific micro-organism as rheumatism, whatever that may be. I judge this to be so because of the exceedingly close resemblance between the mode of onset, the clinical features, and response to the salicylates observed in the arthritis of the two affections. We know that in infancy and childhood scarlet fever is common, while during the same period acute articular rheumatism is infrequent. Could it not be that, while the skin secures immunity, as it were, the serous structures do not; and recurrent attacks take the form known as rheumatic arthritis? However, Osler thinks it is probably not truly rheumatic, but likely more analogous to gonorrheal arthritis.

Gonorrheal Arthritis (or gonorrheal rheumatism as it is more often called) is a septic synovitis, due to the metastatic dissemination of the gonnococcus of Neiser, or its ptomaines. It may develop during the prevalence of the primary disease as the urethritis subsides, or it may not make its appearance until the chronic or gleety stage. Generally it is multiple and commonly affects the sterno-clavicular, inter-vertebral, and sacro-iliac joints, all in contra-distinction to true rheumatic arthritis. The disease has the mule's disposition; intractible, and is prone to recur.

The inflammation is often peri-articular, extending along the sheaths of the tendons. The effusion, when it does occur in the joint, rarely becomes purulent. When it does so, the gonococcus may be found by aspiration and examination. It is thought the serous synovites are due to absorption of the ptomaines, while the suppurative forms are due to absorption and dissemination of the pus micro-organisms. Peri- and endo-cardial complications may occur, with the joint lesions. The synovitis and arthritis produced by gonorrhoea is fairly typical of all the joint affections caused by infective diseases. Further consideration of this variety of pseudo-rheumatic joint lesions will be left to the gentleman who is to follow me, and to whom the subject is especially assigned.

PUERPERAL SEPSIS is another pyemic disease, which is apt to be followed by septic synovitis and arthritis. The complication is usually ushered in by chilly sensations or distinct rigors, followed by rise in temperature, and exhausting sweats. The joint manifestations are those usual to septic arthritis, localized pain, redness and swelling generally, but not invariably, confined to one joint. The occurrence may or may not be associated with a septic endocarditis. It is of course not influenced by the salicylates. This, with the antecedent history, renders the diagnosis comparatively easy.

MULTIPLE ARTHRITIS is common in epidemics of *cerebro-spinal meningitis.* Many joints are usually simultaneously affected. There are the usual symptoms of septic arthritis and, as in the foregoing disease, the lesions are due to dissemination of the infective materiesmorbi.

Acute Myelitis, inflammation of the spinal cord, due to injury, exertion, exposure to cold or as sequel to some infective disease, is sometimes associated with multiple arthritis.

Sydenham noted that some epidemics of *dysentery* were complicated by joint swellings, and rheumatic pains probably analogous to gonorrheal arthritis.

Small-pox is another disease of the infective group which may be followed by joint lesions. It develops, as a rule, during desquamation, and occasionally passes on to suppuration.

I have also observed in my own practice that our Idaho disease, known as *spotted fever,* is sometimes complicated by swelling and painful joints.

In *tabes dorsalis* the joint affections are chiefly confined to the knees, but is not the result of trauma from falling, as some have claimed, but is intimately associated with the disease itself, producing the condition known as Charcot's joint, which is similar in many respects to arthritis deformans.

Hemophilia in some instances is associated with joint affections. The large joints are chiefly affected. There may be simply pain, or the attacks may be ushered in with fever, closely simulating rheumatism. The hemophilia may be preceded and ushered in by the arthritis.

Purpura, or peliosus-rheumatica (Schonlein's disease), is a peculiar affection characterized by multiple arthritis together with a variable eruption. It not infrequently sets in with sore throat, fever and painful joints. The rash makes its appearance first about the affected joints. The arthritis is usually of slight degree except the pain is apt to be severe. The diagnosis is easy. The occurrence of purpura and urticaria, with multiple synovitis, renders it unmistakable. The frequency with which sore throat precedes the attack, the occurrence of occasional endo-carditis, with the treatment test, has caused most writers to regard it as a form of true rheumatism.

Many observers have noted the intimate relation between *chorea* and arthritis. Some go so far as to maintain that chorea is always a manifestation of rheumatism. In the cases of chorea collected by one reporter a personal history of rheumatic pains, more or less pronounced, was obtained in 21 per cent. while a family history of rheumatism was found in 15 per cent. In some cases the arthritis immediately follows the chorea, while in another class of cases the joint affections antedated the nervous symptoms some months or years. Dr. Burr and Dr. Anders do not believe, however, that the two diseases are etiologically related.

In *erysipelas,* Dr. Anders found acute rheumatic arthritis to be the most frequent complication, next to abscess.

QUINZY, and some other forms of *tonsillitis,* I believe to be truely rheumatic in their nature, the tonsils being the *infectionis atrium,* as it were, whereby the specific micro-organisms frequently find entrance into the system. Nature puts up such a vigorous resistance that in many instances the battle begins and ends right there, and threatened invasion of poisonous material is halted at the threshold of the system. In other instances the results are less favorable to the resisting forces, and multiple rheumatic arthritis is the consequence. This to my mind is proven by the promptness with which both the tonsillitis and the subsequent joint affections are influenced by the salicylates.

Illustrative case. Mrs. C. A. S., aged about 43, mother of five children, subject to recurring quinzy. She became ill with this disease sometime in December last, and according to the history she gave me, one tonsil "broke" and discharged, and a week or two later the other did likewise. She was very much run down by this attack, and a few weeks after the subsidence of the suppurating tonsillitis she developed multiple rheumatic arthritis. After suffering for about six weeks under osteopathic treatment, she consented to the calling of a physician. A few hours under the salicylates made the patient quite comfortable and ten days sufficed to effect a cure.

There is but one other condition to which I wish to direct your attention. and I am done. Quoting again from Dr. J. M. Anders, of Philadelphia, who says, "It is lamentable to observe the frequency with which *osteomyelitis* is confounded with rheumatism. This is usually an acute affection, but may develop slowly and gradually, and if not recognized early and properly treated, produces extensive destructive changes."

The differential diagnosis between these two diseases is exceedingly important, as exemplified in the first case reported. In both affections we have redness, swelling, tumefaction, and pain. While these processes may extend clear to the joint involved, they do not in the early stages involve the articular surfaces.

Fever and local symptoms are usually more profound than in rheumatism. Sweats are likewise more pronounced. In osteomyelitis, the bone itself is affected, and bi-lateral pressure elicits great tenderness. not over the joint proper, but over the end of the bones just above or below the joint. In the early stages the limb may sometimes be gently flexed and extended without causing much pain, something which is always impossible in acute rheumatism. Septic ostitis is also usually, though not always, confined to one joint, while rheumatism is essentially a poly-arthritic disease.

The greater intensity of the local symptoms, the involvement of the epiphyses rather than the articular surfaces, and the more pronounced constitutional disturbance than is the case with rheumatism. and lastly. the therapeutic test of salicylic acid. will usually serve as a basis for correct diagnosis.

But I must intrude no further upon the ground allotted to my colleague. to whom the consideration of this subject is consigned and if I have anticipated any of his remarks, my only excuse is the great importance of the subject, and the impossibility of emphasizing too much the care we should observe. for a mistake here may cost our patient his life or limb.

CLINICAL NOTES.

A LARGE FETAL OMENTAL HERNIA.

By Lewis R. Dawson, M. D.,

SEATTLE, WASH.

The specimen from which the accompanying photograph was made is from a patient, Mrs. X——, now about 35 years of age, whose history I give briefly from memory, as I have no complete notes of the case.

July 17th, 1901, I was first called to see her and found her having considerable hemorrhage from a miscarriage, which had taken place the preceding day. The fetus had escaped before I saw her, but from the history which she gave and the appearance of the secundines, which I removed by curettment the same day, I should judge her to have been about three months pregnant. The only assignable cause for the abortion was over-exertion for several days preceding.

She made an uneventful recovery and again conceived about March 28th, 1902. During this pregnancy there were no unusual symptoms, except that she suffered considerably from rheumatic pains in the region of the left hip.

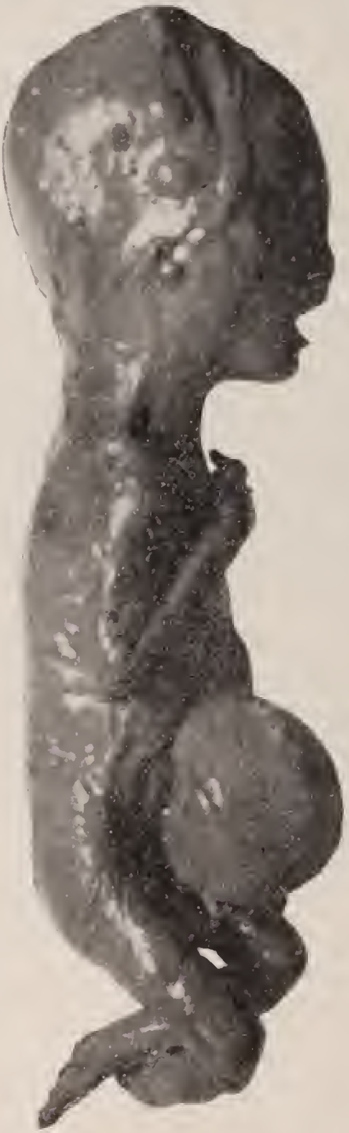
August 26, 1902, I was called to her and found that she had just passed the fetus from which the accompanying photograph was made. She had had some irregular pains and discomfort for about two weeks preceding, to which she attached no special importance. The pains came on so rapidly that the entire duration of the miscarriage was only a couple of hours. The period of utero-gestation of this fetus was just five months, as nearly as I could estimate from her symptoms, as described to me at the time. The death of the fetus must have occurred about two weeks preceding the miscarriage. The placenta was delivered within a few minutes after my arrival, and she again recovered rapidly, with no abnormal symptoms, and soon regained her usual health, except that she was quite nervous for some time following.

Two months following this date, nearly the last of October, she again conceived and is now six months advanced in the third pregnancy. This has progressed normally to the present date, although the patient has suffered quite a good deal from rheumatic pains in the region of her left hip and the left ovary, and she is now in comparatively good health and spirits, looking forward to the birth of her child in August.

Dr. Robert M. Stith dissected the fetus for me, and his report is appended herewith:

The fetus submitted for examination measures 18.5 c. m. in length. It presents in the middle of the abdomen a hernial protrusion, globular in outline, 3 c. m. in diameter. The sac is constricted to a neck 2 c. m.

in diameter. The hernial opening extends from just below the ensiform to a point 1 c. m. above the symphysis pubis, the larger part of the hernia being above the umbilicus. The coverings consist of two layers only, skin and peritoneum.



Contents: All the liver except a small portion of the right lobe, and almost the entire small intestine. The urachus is seen on the sac wall extending from the umbilicus to the bladder.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D., Editor in Chief.
JAMES B. EAGLESON, M. D. Managing Editor.

Published Monthly by the Washington Medical Library Association.

Editorial and Business Office - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. MAY, 1903. NO. 5

EXPERT TESTIMONY IN CIVIL CASES.

No testimony should be of more value than expert testimony in civil cases, or, to be more precise, in damage suit cases, involving the matter of personal injuries. Yet there has grown up a feeling of distrust and disgust for such testimony, as given by physicians and surgeons of today, and the blame for this is laid at our own door, and much of it rightly, though we hardly see how the medical profession as a body can correct the abuse.

A few days ago the writer made a sarcastic remark to a colleague about testimony he had given in a certain damage suit in which they had been associated on opposite sides. The plaintiff's most excellent condition at the present time was spoken of, as well as that immediately following the trial. His answer was that he was "young in these days and had just come to town." "Had just come to town" is a good expression for what was no doubt the real reason, that is, "I wanted people to know that I had come, and took this means to advertise it." Other reasons for being employed in doubtful cases and giving incorrect testimony are venality, for we are no better than any other professional class of men in that regard, though it be to our shame, and the more so from the nature the responsibilities thrown upon us; errors in judgment, since we are all fallible; sympathy, which some of us yet possess; and, lastly, a personal partisan spirit that perhaps overcomes our better judgment. The fault, of course, is in the individuals who compose a part of the profession and not in the profession itself, though the slur is cast at it as a whole.

Legally constituted medical schools license us to practice medicine; and when we have complied with all the laws of the state, if there be any such, we are absolutely free from legally constituted restraints from other members of our profession, any other person, or any organization of medical men as to how we should conduct our professional life, or as to what medical or surgical opinions or vagaries we express upon any subject or in any place. We would not have it, though, that one doctor or clique of doctors should exert any personal control over another in his professional life, but would have it so arranged that a better method should be had than at present exists, of acquiring expert evidence that is truly expert. It is surely absurd to have presented as expert before the jury the testimony of a man who has "just come to town," with no acquired reputation and with no evidence except his own that he has had any whence he came, and especially so of one who has not already made a reputation for honesty and integrity in the locality where he lives. So much for the medical profession and its individuals.

The giving of testimony is much hampered, however one may go into the case, by attorneys on either side who practically know nothing of the subject but get one idea fixed in their minds and everything for a time revolves about this, so that, whatever one's testimony, it is to be brought, bent or broken to this idea, if possible. If one is asked whether a bone were broken, and he answers yes; whether it is as long as the other, and he replies no, these facts alone are wanted, and the expert witness leaves an impression of a permanent injury, no matter how little the shortness or the permanent disability may be. Probably no one asks if the bone was damaged so that its functions were interfered with; and should this be asked and the answer be in the negative, some lawyer would follow it up to the jury and say: "Did you ever hear such testimony as Dr. J.'s? How can a bone be short and still be as good as ever? It passes my understanding how a man of learning can say such preposterous things," etc. And the ever-receptive mind of the juryman believes the lawyer's insinuations show a greater knowledge of man's infirmities than the physician's.

The evil of the hypothetical question is just as great in civil suits as was pointed out in last month's issue in regard to insane cases.

Not every physician or surgeon is an expert, neither is every one honest enough to be so were he called. This evil must be rectified by the legal profession bringing its influence to bear upon our legislators to pass properly drafted bills and special provisions for the selection of proper persons to give expert testimony, the proper method of giving it and the weight that it should have before a jury.

In our Seattle courts it is now the rule to appoint a commission to examine the injured person upon application of the attorney of either side, subject to the objections of the appointees. They make the examination sometimes in their own manner, sometimes subject to the presence and probable interference of the attorney or physician of one or the other side, and at times convenient to them and the plaintiff. Recently in a case where fraud was suspected, after the examination under such an appointment as above, a request was made to return to the house and surprise the plaintiff, which was granted by the judge; but when the plaintiff's attorney was informed of the plan, such an objection was made that the judge telephoned the commission should not go. It is learned that this case has since been thrown out of court on account of a plot being shown between the patient and her physician to defraud the corporation.

We believe that it should be made legal to select three physicians and surgeons to examine the plaintiff in all cases of personal damage suits; that they should be permitted to make as many examinations and at such times as they desire, and that each member should have the right to go alone or with the other members of the commission; that notice of the trial of such suits should be given the judge sufficient time beforehand to enable him to appoint the commission, which should be chosen from a list of physicians and surgeons whose reputation among their fellows should justify such selection. We would have the names of ten physicians selected by the medical society, in those places where one exists, not necessarily members of the society, from which the judge should choose his commission.

As to the manner of giving the testimony, we believe the proper method is to have a carefully written statement prepared which should be read before the jury, and the element of cross-question, endeavoring in any way to break down the report, should be abandoned. Probably the time-honored custom of attorneys could with difficulty be brought to yield to such a rule, but it would be a great advance toward getting at the truth. In case of disagreements of the commission, they should be stated in minority reports. These reports should be absolute and final. In other words, a jury, ignorant of medicine and surgery, should not try the medical or surgical side of the case at all, and should only have submitted to it the liability of the corporation or person against whom the action is brought. A copy of the report should be handed directly to the jury for their perusal, should the case go to them, and should not go to a judge for interpretation. The findings of the commission should go with the history of the injury, the amount of suffering, so far as possible to judge, the present damage to the plaintiff, his present and future earning capacity and future usefulness in general.

We hope some day to see a law passed controlling expert testimony.

THE CONTRACT DOCTOR.

The editorial in *The Journal of the American Medical Association* for April 11, 1903, entitled, "The Battle of Clubs," should be read before every medical society throughout America, and serve as a clarion note of warning to the profession in this country, against the insidious but sure approach of an evil which, unless stopped, will sap the life blood of the profession, as it has done and is doing in Europe, where physicians are reduced to the degradation of making visits to well-to-do members of clubs for the beggardly fee of "8, 6, or even 4 pfenig" per visit. These clubs are organized with "the obvious object of reducing physicians' fees to the poor. Instead of being the recourse of the really poor, to whom a reduction of medical fees would be really justifiable, these societies are utilized by the well-to-do, thus defrauding the profession of its legitimate earnings."

Now, in this country, as far as it has gone, it is even worse. Scores of societies, lodges, and so-called protective and benefit associations have been and are being organized, not among the poor, but among well-to-do laboring classes and even including in their organization a class of more than well-to-do merchants and office employees.

The principal aim of all these organizations is cheap medical service, with some benefits of secondary importance, while in many of them the object, pure and simple, is cheap medical service.

In no other profession would such a condition of affairs be possible, and the cry of "commercialism" will not much longer be sufficient to quiet the protests that will come before our various societies, against the growth of this shameless, open under bidding of one alleged reputable physician against another, for the privilege of serving well-to-do people for a pittance.

We, as a profession, all stand ready and willing to aid the suffering poor, and will always do more true charitable work than any other profession in the world, but charity does not demand that we make professional visits to people who are earning from forty to two hundred dollars a month for fifteen or even less than fifteen cents a visit and perform serious surgical operations for the same price.

THE INDEX MEDICUS.

The gratitude of the medical world is due for the revival of the *Index Medicus*. Since its suspension, five years ago, its place has been imperfectly supplied by the French publication, *Bibliographica Medica*. As one never appreciates a valuable possession so thoroughly as when he has lost it, so the worth of this publication was best realized when it no longer existed. Probably the profession of the Northwest does not so well appreciate the invaluable assistance to be derived from this work, owing to the absence of medical libraries among them, as do those in Eastern cities where the *Index Medicus* is the guiding hand for any one consulting a library. The truth of this statement is evident, since this publication each month presents an index of all articles appearing in all the medical journals of the world. With a medical library for reference, and this guide to use it, one has at hand the means for ascertaining the views of the best medical minds on any subject under consideration. The money for conducting this work is supplied by the Carnegie Institution at Washington, to the extent of $10,000 annually for three years, though this must be supplemented by a large number of subscriptions to the amount of $5 each. This will prove one of the most practical and widespread benefactions of this educational fund. It has been a surprise and disappointment that, thus far, a very small number of subscriptions has been received from the medical profession. This work should become the property of libraries and public medical institutions as well as physicians interested in the promotion and preservation of medical literature.

THE PATHOLOGICAL LABORATORY.

We wish to call the attention of the profession of the Northwest to the existence of the Pathological Laboratory of the King County Medical Society, whose possession by the society is due to the liberality of the donor, Dr. A. R. Becker. The laboratory is thoroughly equipped for all pathological and bacteriological work, the gift including a valuable pathological library and current pathological journals.

In donating the laboratory to the society it is the expressed hope of Dr. Becker that it may be maintained to a high degree of efficiency and become a means of advancing accurate and scientific work among the profession. The society has accepted the gift in this spirit and will aim to make it an appreciated necessity to those who will avail themselves of it. It is unnecessary to emphasize the invaluable aid to be derived by every physician, in his daily practice, from accurate laboratory examinations and tests. One often excuses failure by pleading ignorance that might have been avoided, had a certain examination been made which was neglected on account of lack of facilities for laboratory work. No one, honest to himself and his patient, should offer this excuse if a competent pathologist is available, whose aid can be obtained in reaching a diagnosis.

We desire to recommend the use of these laboratory facilities, not alone on the part of local physicians, but by those of the Northwest who otherwise have none such available.

Dr. R. M. Stith is the director of the laboratory, who will personally attend to work received by it. On a page of our Advertiser will be found a price list.

We sincerely regret that ill health has caused Dr. R. W. Schoenle to depart from Seattle. His position in the medical profession has become established and recognized. In his specialty he has been considered an authority. As a gentleman he has been appreciated by all who have known him. From the inception of NORTHWEST MEDICINE he has been one of its most active supporters and promoters. We shall miss his services on the editorial staff. We wish him future good health and professional prosperity wherever he may become located.

NOTICE.

NORTHWEST MEDICINE will be delivered regularly only to subscribers. It will be sent periodically to all other physicians in Washington, Oregon, Montana, Idaho, British Columbia and Alaska, with the expectation that they will become subscribers. If received by any who do not wish it, the journal will be discontinued on notification to this effect being sent to the managing editor.

ERRATA.

In Dr. Panton's article on "Etiology of Ectopic Pregnancy," in our April issue, page 192, first line of second paragraph, the word *so* should have read *not*, so that the sentence should read, "Another interesting fact is that pregnancy not infrequently occurs in women in whom the ovary has been removed from one side and the Fallopian tube from the other, migration of the ovule being thus demonstrated."

CORRESPONDENCE.

THE ABUSE OF ALCOHOL.

[As physicians we cannot but believe that the most effectual results in counteracting the increasing evils of intemperance will be obtained through educating the people as to the true effect of alcohol on the human system. If the profession would join in an expression of views on this subject, that possesses an indication of united belief, it would surely have a powerful influence on public thought. The work of Dr. T. D. Crothers, of Hartford, Conn., in this direction commands our sympathy. Therefore, we publish his circular which is self-explanatory.—Editor]

Three times during the last century medical manifestos have been issued giving the opinion of physicians on alcohol. The first was issued in 1839, and was signed by 86 persons. The second in 1847, and was signed by 2,000 physicians, and the third appeared in 1871, with the signatures of over 4,000 physicians, including the names of many leading physicians in all parts of the world. A fourth declaration of opinions is now being circulated for signatures, and reads as follows:

The following statement has been agreed upon by the Council of the British Medical Temperance Association, the American Medical Temperance Association, the Society of Medical Abstainers in Germany, and leading physicians in England and on the continent. The purpose of this is to have a general agreement of opinions of all prominent physicians in civilized countries concerning the dangers from alcohol, and in this way give support to the efforts made to check and prevent the evils from this source.

In view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, we, members of the medical profession, feel it to be our duty, as being in some sense the guardians of the public health, to speak plainly of the nature of alcohol, and of the injury to the individual and the danger to the community which arise from the prevalent use of intoxicating liquors as beverages.

We think it ought to be known that:

1. Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action, and interferes with the function of the cells and tissues of the body, impairing self-control by producing progressive paralysis of the judgment and of the will, and having other markedly injurious effects. Hence alcohol must be regarded as a poison, and ought not to be classed among foods.

2. Observation establishes the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially to infectious diseases), and shortening the duration of life.

3. Total abstainers, other conditions being similar, can perform more work, possess great powers of endurance, have on the average less sickness, and recover more quickly than non-abstainers, especially from infectious diseases, while they altogether escape diseases specially caused by alcohol.

4. All the bodily functions of a man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centers.

5. Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally, and physicially. Thus deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved the importance and danger of this increase cannot be exaggerated.

Seeing, then, that the common use of alcoholic beverages is always and everywhere followed, sooner or later, by moral, physical, and social results of a most serious and threatening character, and that it is the cause, direct and indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease, and death, not only in the case of those who take such beverages, but in the case of others who are unavoidably associated with them, we feel warranted, nay, compelled to urge the general adoption of total abstinence from all intoxicating liquors as beverages as the surest, simplest, and quickest method of removing the evils which necessarily result from their use. Such a course is not only universally safe, but is also natural.

We believe that such an era of health, happiness, and prosperity would be inaugurated thereby that many of the social problems of the present age would be solved.

This declaration has already received the signatures of over 1,000 physicians in all parts of the country. I have been appointed chairman to present this manifesto to American physicians for their endorsement. I should be very glad to receive the name, title and address of any physician who is willing to aid by his signature to correct public sentiment and assist in the prevention of one of the great evils of the age. This is purely a scientific effort for the purpose of having a general concensus of opinion of the leading physicians of the world, and it is assumed that American physicians are equally enthusiastic and prompt to lend their signatures to this statement as in the wine-drinking countries of Europe. A postal card with address and title is earnestly solicited from every medical man who would like to be represented in this great movement for a clearer comprehension of the subject. Address,

T. D. Crothers, *Hartford, Conn.*

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle chamber of commerce, on the evening of April 6, 1903, the President being in the chair. Thirty-seven members and eight visitors were in attendance.

Dr. E. Janson was elected to membership in the society. The applications of Drs. L. W. Clark and Harriette J. Clark were referred to the Committee on Admission.

A communication was read from Dr. A. R. Becker, offering to present to the society his bacteriological and pathological laboratory, on condition that it be properly maintained and a competent man be placed in charge to utilize it for the benefit of the profession. In the discussion following, the generosity of the offer was dwelt upon and fully appreciated. It was conceded that the gift should not be accepted unless the society was prepared to fulfill the stipulated conditions. It was mentioned that provision must be made for the monthly rental of a suitable room. The greatest problem seemed to be the securing of a capable pathologist and whether the influence of the society should be extended to divert pathological work exclusively to a man in that position. On a motion to that effect, the President appointed a committee, consisting of Drs. Winslow, DeBeck and Willis, to investigate the advisability of accepting the gift and to report at the next meeting.

The resignation of Dr. R. W. Schoenle from the Committee on Program and Scientific Work was presented, in consequence of his going to California for his health. The President appointed Dr. Sharples to fill the vacancy. On motion of Dr. Moore a vote of thanks was passed to Dr. Schoenle for his efficient work on this committee.

PATHOLOGICAL SPECIMENS.

Dr. Sharples presented the lungs, heart and brain of a man who came to him from Bremerton and gave the following history:

This man was taken sick upon the 13th of March, at which time his case was diagnosed as pneumonia. Upon the 21st he had hemorrhages from his mouth, nose and the urethral canal, and was sent over to me. The hemorrhages continued until the date of his death on the 25th, when about four o'clock in the morning he became unconscious, and in about three hours time died.

The autopsy revealed a very large collection of serum in the left pleural cavity, on the outer border of which was a very thin blood clot extending practically all the way around. The heart was pushed over to the right side, past the sternum. There were purpuric spots on the heart, upon the parietal pleural surfaces, and the same spots were found upon the stomach, the intestines, the bladder, and a large number of them in the canal.

Opening up the brain there were hemorrhages at the base and under the meninges; the surface of the brain was infiltrated upon the right side, posterior to the fissure of Rolando. There was quite a large blood clot on the right side of the cerebellum. There were also numerous small ecchymoses in the middle lobe, extending to the roof of the fourth ventricle. The lung itself was flattened so that it was about twice the thickness of sole leather, and contained tubercular nodules on the pleura. A tubercular focus was found in the right lung and a calcareous bronchial gland.

I believe this case was probably a pleurisy of tubercular origin, with purpura hemorrhagica.

CLINICAL CASES.

Dr. Carroll presented a woman, 23 years of age, with Elephantiasis of Legs and Vulva. He stated that the condition had existed for 14 years. There was no tubercular history but she had exhibited sweats and fever, irregular menstruation. Her sputum had not been examined. She had suffered much pain. Dr. Heussy said he had seen her six years ago when the condition was much less marked than at present. The swelling was more marked at night and much watery discharge. The case was examined carefully by the members.

The paper of the evening was read by Dr. W. C. Heussy on Puerperal Mastitis. (See page 234.)

DISCUSSION.

Dr. Raymond said he was much pleased with the paper which was practical and contained good advice. He was impressed by the remark concerning the application of alcohol and brandy to the nipples before confinement. He believed such a procedure to be disastrous. It caused the nipples to get hard and crack. There is no doubt the cause of mastitis is infection through the nipple, the result of neglect on the part of the physician, lack of cleanliness of the nurse or both. We should insist on absolute cleanliness, not only of the nipples but of the whole patient. The patient should not handle her breasts or nipples at all, because she will often do so with soiled hands. The nipples should be kept clean when not nursing and the clothing should not touch them.

Dr. Mitchell said that he believed in deep kneading of the breasts and emptying them with the breast pump to prevent inflammation and consequent suppuration. He had followed this practice for twelve or fourteen years without having had a case of suppuration, which he attributed to this massage.

Dr. Miles thought the essayist had thoroughly covered the ground. He had rarely had such a case and knew little of them. Once he had a patient whom he discharged in a normal condition, who later presented a suppurative mastitis for which he was not responsible. He thought she was infected by herself or the child. While nitrate of silver might be all right for affected nipples, he preferred compound tincture of benzoin before and after nursing.

Dr. Read stated that we find these cases ones of great anxiety.

While we may not be responsible for their beginning, we are for their ending. If not properly treated, a young girl with her first baby might have abscesses till the breast was destroyed. An infected breast should be treated as a suppurative process anywhere else. Inject cocaine and incise the abscess. We should care for the nipples, as one slightly retracted may lead to troubles in later life. The diagnosis of mastitis after forty years of age should be made with caution as it may be malignant.

Dr. Thompson said these troubles are by no means confined to the poorer classes, as stated by some. He practised largely among this class for ten years and never had a case.

The second semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of April 20, 1903, President Sweeney being in the chair. Forty members and five visitors were in attendance.

The application for membership of E. C. Neville was referred to the Committee on Admission.

The Committee on Laboratory, appointed at the last meeting, reported with a recommendation that the offer of Dr. Becker's laboratory be accepted by the society, on condition that a guarantee fund of $125 per month be subscribed by the members to cover all expenses of maintaining the laboratory, including a salary of $50 per month to a pathologist; that Dr. R. M. Stith be employed in this capacity, who will agree to devote three hours daily to the laboratory work; that the monthly subscriptions be offset by an equal amount of laboratory work for the subscribers. If these conditions were not met it was recommended to decline the offer.

The report was discussed by Drs. Smith, Heg, DeBeck, Willis and Loughary. The general feeling was one of doubt that such a fund could be maintained. While it might be sustained for a few months there was small probability of its being continued indefinitely. The fact was mentioned that few men were educated to the necessity of having laboratory work done and paying a fee for it. The members of the committee thought that the recommended sum could be subscribed. The motion prevailed to accept the offer as recommended, provided the conditions were met by the committee.

Clinical Cases.

Dr. Stillson presented a man of 26 years, a shipmaster, with a diagnosis of Lupus Vulgaris Verrucosus involving the nose, left malar region and upper lip. The condition appeared a year ago as a pimple on the left side of the nose, near the cheek, gradually spreading to the present extent. It now invades the mucous membrane of the lip which is said to be of rare occurrence. Several pus cavities are evident along the upper lip.

The patient has been under the treatment of Dr. Warmburg who has exhausted the pharmacopeia in using local and constitutional remedies. He was referred to Dr. Stillson for X-ray treatment. The verrucose form of the disease is diagnosed from the hypertrophic and nodular appearance remaining after a certain progress. Photographs were displayed to verify the diagnosis. The discharging pus had not been examined for the tubercle bacilli, but tuberculin had been injected with no reaction. The case was exhibited so that the members might see the present condition and compare it with that a few months hence, after X-ray treatment, when the patient will again be exhibited.

Dr. Peterkin presented two cases of GONORRHEA WITH URETHRAL FISTULA. The first patient had a congenital fistula beneath and parallel to the urethra, extending to the depth of one and one-half inches and ending in a blind pouch. The second patient had a fistulous opening at the side of the meatus, connecting with the urethra at the depth of one-half inch. Neither case was discovered until examination for a prolonged gonorrhea. It was proposed to treat both by slitting the wall between them and the urethra.

Dr. J. B. Loughary read the paper of the evening on ABSTRACTS IN MENTAL PHILOSOPHY. (To be published later.)

DISCUSSION.

Dr. Sweeney said that Socrates was the first to make self-examination a philosophical method. His principle was "Man, know thyself." "I desire," he said, "to know God and the soul, nothing more. For this it is necessary to enter into oneself." The summing up of the argument against introspection is that the thinker cannot divide himself into two persons, of whom one reasons while the other observes him reason. This objection is met by J. Stuart Mill who holds, "That a fact may be studied in two ways, either by direct knowledge at the time or through the medium of memory a moment after. Whatever we are directly aware of we can directly observe."

Anatomy and physiology supply us with the structure and functions of the different parts of the nervous system. Phenomena of thought are accompanied by those of the nervous system. Language and thought are intimate; words reveal the shades of thought. We find the word soul in the languages of all civilized peoples. An examination of the roots of the ultimate elements of words show that their formation requires a mind capable of abstraction. From the very structure of language, therefore, we infer the existence of a mind which is superorganic and spiritual. Materialists, and those who conclude that nothing spiritual is necessary in man, claim a strict mathematical proportion and correlation between perfection of the brain and the degrees of intelligence. As a consequence they infer that the knowledge of one is an infallible indication of the other. From the union of thought and brain they infer their identity. After weighing the brains of man and animals and measuring the skulls of each they cannot find the reason of superior intellect in man. The physical qualities, number of convolutions, the amount of gray matter and number of cells in it, the localization of function have failed to furnish the knowledge of mind, the *vis a tergo*, that directs and controls the whole being and personality of man. All of which is an argument in favor of the spirituality of the soul, the ego of man.

Dr. Smith said that parts of the paper reminded him of Hudson's work on Psychical Phenomena, which he had recently read with much interest, which is an elaboration of the theory of the division of the mind into the objective and subjective personalities. On this theory the author presents a reasonable explanation of the mystifying phenomena of hypnotism, somnambulism, telepathy, Christian Science and the like. The essayist referred to the anatomical identity of the brains of man and lower animals. If the theory is accepted that animals are controlled by the subjective consciousness, man's superiority would seem due alone to the possession of the objective or voluntary personality. On this basis Hudson explains man's power over wild animals, as illustrated in the horse tamer. He approaches the vicious, unbroken animal and, after gazing intently in his eye for a time, renders him meek as a lamb. The man holds his objective mind in abeyance for a time while his subjective consciousness, the same that controls the animal, is made to act and the two beings are in harmony with each other, the horse recognizing and yielding to his superior. The same explanation is applied to the taming of wild beasts.

Dr. Loughary mentioned some of the phenomena of telepathy and the communication between individuals, through the subjective consciousness, regardless of space, time and intervening obstacles. Hudson and others claim that this power is one that can be cultivated. If, before falling asleep, the objective mind concentrates itself to compel the subjective consciousness to hold communion with a certain person at a distance this can be accomplished. Many instances have been cited that appear to sustain this phenomenon. It has been claimed that by thus training and employing this subjective mind, one can exert therapeutic influences upon others at will. Here may lie the explanation of the popular mental cures of the day.

Dr. Stillson thought the essayist too modest in his presentation of the subject which is a practical one. He wished to emphasize the importance of the subconscious self in the cultivation of memory. He cited the cases of one's inability to recall names when needed. Suddenly the subjective mind reveals the desired word. We should early cultivate proper habits of thought which is really the recognition of the channels of action of the sub-conscious self. Habit has an anatomical basis. The essayist did not mention the fact that impressions will often radiate from their ultimate destination. Thus the cuneus, to which go impressions from the eye, is located near the nucleus for the muscles for the hand and face. This explains the contortions of the face exhibited by the boy when boring with an augur.

Dr. Churchill wished to emphasize the subconscious activity which never ceases. This fact has a practical application. A lady consulted him about her boy who wet the bed. She was advised to try suggesting to him each night in low tones, after he was asleep, that he must cease wetting the bed. She reported that it soon worked to perfection. Later the mother was troubled by his teasing his sister and being disobedient. The doctor advised the suggestive treatment. After he was asleep she told him he was not to tease his sister in the future and to be a good boy. Next morning she was surprised to have him voluntarily express the good resolutions he had formed for the future, using almost the same terms she had employed with him while asleep. We can thus readily train the subjective mind. He had successfully treated constipation by suggesting at night that the patient's bowels would move in the morning.

Dr. Loughary, in closing, said that a distinction should be made between psychology and theology. He had intentionally avoided any reference to the latter, but Dr. Sweeney had confused them. He wished to emphasize the fact that the mind is an entity and a whole in itself. If one part of it is gone the mind is destroyed. The committee appointed by the Society for Psychical Research, after a long period of investigation of various psychic phenomena, reported that telepathy is no myth. It is a real fact with abundant proof, but they could not explain its action. The doctor related an experience of his own. He was one day reading a paper when his mind suddenly reverted to a patient whom he had not seen or thought of for four years. In a short time this person appeared in his office. He requested someone to explain this if not an instance of telepathy. He endorsed what had been said about training one's subjective consciousness. The man who can act on his patient through this mental influence and thus gain his confidence will become the successful practitioner.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. HOLT, M. D.; Secretary, F. J. VAN KIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in the library room of the Odd Fellow's Hall, April 13th, 1903. President Holt being in the chair. The minutes of the last meeting were read and approved.

Dr. R. L. Markley presented a communication from a reputable medical journal, requesting him to contribute an article for publication. The society heartily approved of the same.

The question of scarlet fever being still epidemic in our city was informally discussed.

Dr. H. Thompson requested the secretary to read an article upon the baneful sequellæ of untrained nurses practicing midwifery. The doctor had recently been called to a case of gonorrhoeal ophthahima in which destruction of vision had already taken place. The mother had been attended by an unlicensed midwife. Other similar cases were reported.

The program of the evening consisted of an excellent paper on "Rational Therapeutics" by Dr. W. N. Hunt. A prescription containing seventeen grains of depressing coal tar derivative per dose was read as a sample of polytherapy. We should be liberal in our selection of drugs, as practically the same action can be obtained by different therapeutic formulae. But no drug should be prescribed, the action of which is not known, both for good and bad. The paper was discussed by Drs. Biggs, Compton and others.

The meeting adjourned to meet the second Monday in May.

THE SOUTH IDAHO DISTRICT MEDICAL SOCIETY.

The spring meeting of the South Idaho District Medical Society was held at Boise, April 9, 1903, the day session being at the city hall and the night one at the senate chamber.

The meeting was well attended, with interesting papers and enthusiastic discussions.

The following program was presented:

SYMPOSIUM ON RHEUMATISM

AND PSEUDO-RHEUMATIC AFFECTIONS WHICH SIMULATE OR MAY BE MISTAKEN FOR RHEUMATISM.

Sec. 1. Acute Rheumatic Fever...............DR. L. C. BOWERS, Boise
Dr. B. W. Mather of Mountain Home opened the discussion.

Sec. 2. Chronic Rheumatism................DR. GEO. COLLISTER, Boise
Dr. J. L. Stewart of Boise opened the discussion.

Sec. 3. Joint Affections the Result of Infectious Diseases or Sepsis
...................................DR. ROBT. L. NOURSE, Hailey
Dr. G. M. Waterhouse of Weiser opened the discussion.

Sec. 4. Gonorrhoeal Arthritis...............DR. B. L. STEEVES, Weiser
Dr. O. B. Steely of Pocatello opened the discussion.

Sec. 5. Gout..................................DR. JOHN BOECK, Boise
Dr. J. W. S. Emerson of Shoshone opened the discussion.

Sec. 6. Arthritis Deformans..............DR. W. A. WRIGHT, Pocatello
Dr. W. D. Springer of Boise opened the discussion.

Sec. 7. Osteomyelitis....................DR. J. J. HAMILTON, Caldwell
Dr. J. M. Taylor of Boise opened the discussion.

Paper—"The Treatment of Pneumonia,"........DR. ED. E. MAXEY, Boise
Dr. H. A. Castle of Pocatello opened the discussion.

This society is growing in membership, at present consisting of more than seventy. Soon all available material will belong to the fold. The society takes pride in the medical profession of Idaho, her medical laws and the scientific work of her members.

The following officers were elected for the year 1903: President, Dr. L. C. Bowers, of Boise; vice president, Dr. J. L. Stewart, of Boise; secretary and treasurer, Dr. H. A. Castle, of Pocatello. The executive committee consists of the above officers, with Dr. R. L. Nourse, of Hailey, and Dr. J. J. Hamilton, of Caldwell.

The next meeting of the society will be held early in July at Hailey, Idaho.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE.

Edited by

C. W. Sharples, M. D., Seattle.

H. M. Read, M. D., Seattle.

Mouth Infection Due to Natural Teeth. (By D. D. Smith, M. D., Philadelphia Medical Journal, March 28, 1903.)

Dr. Smith points out, first, the fact that in an adult's normal mouth there are twenty to thirty square inches of exposed tooth surface; that the oral cavity is the vestibule of human life, and that all foods that are taken in are covered and mixed with the oral secretion and the digestive glands that empty therein. Here also are deposited and grown myriads of bacteria producing many changes in the teeth and the mucous membrane. The decay of material that may be retained in and between the teeth and its extreme offensivness are well demonstrated by drawing silk floss between the teeth when first rising in the morning. It is said that the most prevalent disease of the human race is dental decay, and, of course, associated with this, development of other bacteria.

He goes on to show that this mouth infection may be responsible for a great many of the systemic diseases that we are called upon to treat. His observations lead him to believe that the kidneys are very often affected from the disease, pyorrhea alveolaris. It has also been demonstrated that by coughing or sneezing germs may be scattered to a distance of twenty-two feet. The general health so often improves after relief from the mouth conditions. Complete recovery from ordinary diseases of the digestive tract, from many skin troubles and numerous disorders, is a very common result of the extraction of all teeth. In tubercular cases, where there are rough teeth, there is a liability to mouth infection from expectoration.

Dr. William Hunter says that oral spepis is a cause of pernicious anemia. The treatment that he advises for all conditions that might be attributable to mouth infection, is what he styles a sanitary treatment of the teeth, which consists in having the dentist clean and polish all the teeth at frequent intervals, removing between all spaces, so far as possible for him to do, all concretions, calcic deposits, semisolids, bacterial placques, inspissated secretions and excretions, which gather on the surface of the teeth, between them and on the gum margins, to be followed by a thorough polishing of the tooth surfaces. By this means he arrests all inflammatory processes in the mouth. The diseases that he especially hopes to combat are, first, conditions of malaise and so-called nervousness in both men and women, chronic nervous dyspepsia, alveolar pyorrhea and an occasional case of tonsilitis of long standing and to prevent all such forms of the infectious diseases in which the infection enters through the mouth. He says that each physician should regularly, with a pocket mirror, examine the mouth and teeth of his patients, and feels that the role of a physician as a hygienist would be thus nearly complete. SHARPLES.

SYMPTOMATOLOGY OF TABES. (By Sarbo, Journ. of A. M. A., April 25, 1903, and Deutsche Zeitft f. Nervenheilkunde, Leipsic.)

Sarbo's report shows 7.4 per cent. of tabes out of 1,200 cases of nervous diseases in his private practice and 2.6 per cent. out of 4,000 hospital and dispensary cases. In private practice the proportion of men to women was 83 to 6, while in hospital and dispensary it was 87 to 17. The ages were from 23 to 73. The longest time between primary infection and development of tabes was twenty-seven years. In ten cases it was from one to five years. In seven cases both man and wife had tabes. The primary symptoms in 67.5 per cent. of 195 cases, was lancinating pains. Diplopia was the first symptom in 3.6 per cent. Gastric symptoms, vertigo or paresthesia were the first in 3.1 per cent. for each symptom, weakness of feet in 2.7 per cent. Impaired vision, gastric crises, and bladder symptoms were first in 2.2 per cent. each. The girdle sensation was first in 1.6 per cent and heart crises and painful lassitude in 1.1 per cent. In 5 per cent. deafness, ptosis, dyspnea, or the Argyll signs were first.

In the total 195 cases, lancinating pains occurred at some stage of the disease in 93 per cent, the Rhomberg in 93 per cent, while ankleclomes was abolished in 91 per cent. Westphal's sign was in 89.4 and the Argyll in 88.8 per cent.; analgesia of the peroneus region in 85.5 per cent. Bladder symptoms were present in 79 per cent., parasthesia in 72, analgesia of the ulnar region in 66 and atrophy or blanching of the optic nerve in 61 per cent; anisocoria in 46.6 per cent.; bilateral myosis in 21 and mydriasis in 14 per cent.; paralysis of the ocular muscles in 10.5, and trophic disturbances in 4.5 per cent.

READ.

DISCOVERY OF THE GERM OF SMALLPOX. (From a special dispatch to Journal A. M. A., May 2, 1903.)

In the presence of more than five hundred prominent members of the medical profession, in an amphitheater of Harvard Medical School, Prof. W. T. Councilman made his announcement of the discovery of the germ of smallpox. He stated that for two years Drs. Brinkerhoff, McGrath, Lyzzer and Thompson had, under his supervision, carried on the study in the laboratories at the smallpox hospital at Galloupe's Island, and at the Detention hospital on Southampton street, with the co-operation of the Boston Board of Health.

The material was all brought to the Harvard Medical School and studied there. They first studied vaccinia, then the contents of vesicles and pustules. They could not find any definite germs in these, because of the great number of bacteria of various kinds which were always present. The organism of the disease was at last revealed with its cycles of development by making an anatomic study of the lesions of the disease. In the deep epithelial layers of the skin the organism was found, which consists of small bodies one micron in diameter, and have been noted by other observers. They are homogeneous, increase in size, become granular in structure gradually, irregular in shape, and surrounded by little circles more or less like amebae. They stain easily. Now and then segmentation is seen, the organism splitting into a number of segments.

This is a distinct cycle. There is no change in the nuclei; a vacuole surrounds the organism and grows with it. It suddenly disappears and peculiar changes are noted in the nuclei; a ring appears and grows; rings appear in its periphery and its structure becomes spongelike. This finally fills the whole nucleus, which degenerates and sets free the body. It does not increase much more in size, but the structures become more complex; the ring-like bodies appear, one micron in diameter, and break up into these "spores." There is thus, as in other protozoa, two cycles, the intracellular and the intranuclear, the latter being the more complex, and corresponds to sexual development.

In vaccinia there is only the first cycle, and this is the case when rabbits are exposed to smallpox. The monkey being nearer to man, gives both cycles. The whole process is complete when the vesicle begins to form. These stages are not found in the vesicles, pustules or crusts, but the "spores" have been found in the blood vessels of the skin. These are probably not the only cause of the later eruption, but prepare the way for the streptococci. Prof. Councilman showed a beautiful series of lantern slides, made from micro-photographs, which fully and clearly established each of his statements. Prof. Calkins, professor of zoology at Columbia University, was present and agreed with Prof. Councilman in believing the organism a protozoan. He warmly congratulated Prof. Councilman and his associates for their investigations and discoveries, and specially noted the advantages of the discoveries in aiding the early diagnosis of the disease. If the organism can be found in the epithelial cells or the blood instead of having to wait fourteen days for the eruption to appear, valuable time would be saved and the possibilities regarding treatment are evident. The organism belongs to the class of microsporidia. READ.

DISEASES OF CHILDREN.

Edited by

G. B. McCulloch, M. D., Seattle.	G. S. Hicks, M. D., Tacoma.	C. B. Ford, M. D. Seattle.

Cyclic Vomiting in Children. (By Thomas C. Ely, M. D. The Journal of A. M. A., March 28, 1903.)

Dr. Ely says all neuroses necessitate the exclusion of organic disease, and an appreciation of an unusual excitability of the nervous system. Of all the various gastric neuroses, secretory, sensory and motor, none are subjects of greater interest than the motor, and none of the latter of more interest than cyclic vomiting. The mechanism of vomiting includes a vomiting center, situated in the medulla, near the respiratory center, from which impulses are sent to the diaphragm complex act consists of an inspiration, the glottis closing, the diaphragm contracting, the longitudinal fibers of the stomach opening its cardiac orifice, when contraction of the abdominal muscles completes gastric, and to the abdominal muscles by the intercostal nerves. The the act, forcing out the stomach contents. The process is almost physiologic, but, unlike a physiologic process, the nervous and vascular systems are always reduced in power, probably not only by the act, but by the morbid process which produces the condition acting on other parts of the nervous system than the vomiting center.

The differentiation of the causes of vomiting frequently presents difficulties. This cyclic vomiting occurs in a certain type of children, gouty and neurotic, and is due to toxins from faulty metabolism and faulty kidney elimination. Cyclic vomiting has been likened to migraine in its tendency to recurrence or periodicity. Prostration is extreme. The vomiting is excessive, severe, protracted, and nothing can be retained on the stomach. Thirst is excessive and distressing. There is generally fever of an indefinite type. Abdominal symptoms are quite immaterial and varied. There may or may not be constipation. There is no connection with diet or digestion. The urine seems the most distinctive feature, being loaded with amorphous waters and uric acid crystals, entirely out of proportion to the fever and other phenomena. Closer study of the urine in all cases may reveal the true cause, possibly blood examinations assisting. A condition most likely to be confounded with these gastric neuroses is the more ordinary, recurrent, bilious vomiting. The points of distinction are these:

In bilious vomiting:	In cyclic vomiting:
(1) History, improper feeding.	(1) No such history; may occur with the most careful diet, and with no symptoms of indigestion.
(2) Unloading the bowels relieves.	(2) No such effect.
(3) Tongue coated.	(3) May be clean.
(4) Breath heavy.	(4) Breath late in attacks may have wine odor of acetone, but otherwise normal.
(5) Abdomen bloated and distended.	(5) Generally about normal.
(6) Abdominal pain and colic.	(6) As a rule, none.
(7) Abdominal peristalsis and with colic.	(7) Ausculation of abdomen, especially late in the attack, reveals absence of peristalsis.
(8) Stools often clayey.	(8) Generally normal.
(9) Ordinary febrile urine.	(9) Urine scanty and loaded with uric acid crystals and amorphous waters, out of proportion to other symptoms.

In cyclic vomiting the excessive thirst, cyclic character, severity and persistence of vomiting, are quite pathognomonic. A differentiation of other causes of vomiting requires an examination of all the by the phrenic nerve, to the stomach and esophagus by the pneumoorgans. (1) Vomiting due to local diseases, irritation of the walls of stomach, as in cases of irritation from medicine or food, overdistention with gas, congested mucous membrane, with irritating secretions. (2) Vomiting may be due to intestinal causes, quite the same nature as above or to other abdominal causes as obstruction, peritonitis and appendicitis. (3) It may be reflex from disturbance of the cerebrospinal system, brain disease, from pharynx, eye, ear, or almost any organ. (4) Vomiting may be central or toxic from an irritating state of the blood acting on the vomiting center. This would include the infectious diseases, and toxemia from kidney disease. In the vomiting of children it is always wise to follow two rules: To examine carefully the throat, and not to be easily convinced that the cause is local, an irritated or diseased stomach. That the phenomena of cyclic vomiting is due to some toxic blood state seems certain, the exact nature of the toxin remaining in obscurity.

The treatment is sedative and eliminative. Morphine and atropine hypodermically, calomel dry on the tongue in small and frequent doses, in conjunction with high saline enemas, lavage in some cases. Some of the liquid peptonoids should be the only diet for several days.

Ford.

A Preliminary Communication Concerning the Nature and Treatment of Recurrent Vomiting in Children. (By David L. Edsall, M. D. American Journal of the Medical Sciences, April, 1903.)

Dr. Edsall says that the nature of the disorder has never been demonstrated and the treatment has been correspondingly ineffectual. The commonest theories as to its causation are that it is a neurosis, or that it is due to the so-called gouty or uric acid diathesis. The latter theory apparently has no better basis than the fact that the subjects of the disorder are members of families in which nutritional disturbances are common, while the term neurosis offers no substantial aid in coming to an understanding of the condition.

He considers that a cryptogenic acid intoxication is probably in many cases an important, perhaps the most important element in producing the exhausting and perhaps fatal vomiting. In the type of acid intoxication almost always seen (that in which beta-oxybutyric acid is the chief acid present), the characteristic evidences of its existence are the odor of acetone to the breath, and particularly the presence of acetone, diacetic acid, and oxybutyric acid in the urine.

The symptoms are due to the presence of an excessive amount of acids, and are produced by the reduction of the alkalinity of the tissues and of the body fluids, and the loss of alkalies in the excretions, the acids carrying the alkalies off in combination with them.

The rational treatment of the condition is, therefore, to administer alkalies in extremely large doses, in order to neutralize artificially the excess of acids present.

The cause of this acid intoxication can only be suspected. There are probably two varieties of this acidosis, one due to disturbance of metabolism, another that is due primarily to digestive disturbances but that is perhaps intensified by secondary disturbances of metabolism. He does not think that recurrent vomiting is always due to acid intoxication. When it is, large doses of alkalis given early will relieve.

FORD.

PATHOLOGY AND BACTERIOLOGY.

Edited by

A. R. BECKER, M. D.,
Seattle.

R. D. WILSON, M. D.,
Tacoma.

SCARLET FEVER AND STREPTOCOCCEMIA. (Prof. Ludvig Hektoen, M. D. The Journal of the American Medical Association, Vol. XL., No. 11.)

After reviewing the literature on the frequency of streptococci in fatal scarlatina, Hektoen gives the details of a study of one hundred cases studied in the Memorial Institute for Infectious Diseases. He shows that one group has taken the ground that streptococci, either of the ordinary kind or of one of the varieties showing slight cultural differences, are the original etiological cause of scarlet fever; while the majority of observers believe them to be evidence of secondary infection, and these latest studies of his incline him to join the latter group. And his reasons are, because the streptococcus infection does not appear before or among the first symptoms, but later, if at all; is not demonstrable at any time in a large majority of cases (except in the throat), and the serum from convalescing patients has no agglutinating effect on the streptococci taken from victims of the disease; nor did the serum from convalescents have any protective action in rabbits injected with such streptococci. And it is also a fact that streptococci seem to occupy about the same relations to the other exanthematous fevers.

"In the face of these considerations it seems to me that the best hypothesis of the etiology of scarlet fever for working purposes is the one that in this disease two infections generally coexist in the oropharyngeal cavity. The cause of the specific, primary infection is unknown. So far, its existence has not been rendered evident except by the specific contagions and clinico-epidemiologic peculiarities of scarlatina. The second infection is the streptococcus infection, which may be regarded as practically constant, because there seems to be in all cases of scarlet fever a marked increase in the number of streptococci in the throat as compared with normal conditions, but this infection does not seem, as a rule, to be generalized, when we except the severe, fatal cases. * * * It has been suggested that the cocci may be ordinary, well-known streptococci that under special conditions from a limited pharyngeal focus produce a specific toxin which, carried in the circulation, calls forth the cutaneous eruption. * * * This is the theory of the production of bacteriogenic cytotoxins under the influence of stimuli from the host according to the general principles of Ehrlich's great theory of the production of toxins and lysins in general. * * *

This view of the nature of scarlet fever as yet lacks experimental proof. It receives neither support nor discredit from the results of this study."

BECKER.

CANCER OF THE TONGUE. (H. T. Butlin. British Medical Journal, Feb. 14, 1903. Quoted from Philadelphia Medical Journal, March 7, 1903.)

Butlin has collected the results of all his operations for cancer of the tongue performed up to three years ago. Of 129, 32 are absolute successes. Twelve patients died of some other disease within three years after the operation; if these be excluded, the proportion of success is over 27 per cent. One patient is well after nineteen years, and another is well three years after removal of the tongue and metastases of the lymph-glands of the neck. Fourteen died of operation, twenty-nine died of recurrence in the month, and forty-one died of recurrence in the lymphatic glands without recurrence in the mouth. There is no portion of the body in which operation is so urgently called for as in the mouth; and there is no portion of the body in which early operation gives such good results. Chronic superficial glossitis and leukoplakia, the result of irritation, strongly predispose to the formation of cancer. Lumps and nodules in the substance of the tongue and old chronic ulcerations rarely become cancerous. Warty growths, thickened areas of leukoplakia and progressing indolent ulcers, may be regarded as precancerous conditions and should be removed at once. He advises patients suffering from bad superficial glossitis to have that portion of the tongue removed even when there is no sign of cancer. BECKER.

FREQUENCY OF GALL-STONES IN THE UNITED STATES. (C. D. Mosher, M. D. Johns Hopkins Hospital Bulletin, Vol. XII., No. 125.)

"On the basis of the analysis of the 1655 autopsies from the Johns Hopkins Pathological Department, as compared with 1150(?) cases as given by Schroder of Strassburg, gall-stones are less frequent in the United States than in Germany, the United States showing a frequency of 6.94 per cent, Germany of 12 per cent." In a given number of cases, the frequency will increase with the age of the patient. They are more frequent in whites than blacks—7.85 to 5.51 per cent. And more frequent in women than in men—9.37 to 5.94 per cent; but American women have them only about half as frequently as German women. In the discussion, before the Johns Hopkins Hospital Medical Society, Dr. Kelly said: "The immediate occasion of Dr. Mosher's investigation was that I have recently, whenever making a large enough abdominal incision, made an exploration of all the abdominal organs, and in these cases I have found about 14.5 per cent of gall-stones with more or less extensive pathological changes. In each instance I removed the stones by a simple and rapid operation by pushing them up against the abdominal wall from within, while cutting down from the outside on the hard body; I then everted the gall-bladder, incised it, and the stones were popped out. It then became a matter of interest to know just how frequently gall-stones were found, and Dr. Mosher has taken up the work and has made a wide and thorough investigation." BECKER.

SOME RECENT STUDIES ON IMMUNITY. (By J. J. MacKenzie, B. A., M. B., The Canada Lancet, April, 1903.)

MacKenzie says that the proper understanding of immunity must be based on a proper understanding of bacterial action in the body. Disease is due to poisons or toxins elaborated by micro-organisms in the body and at the expense of the host. The ptomains discovered first, some of which are very poisonous, did not have the toxic character of toxins which were later isolated from the blood of infectious cases. Many of the toxins are so unstable chemically that they are destroyed or changed in isolating them. These toxins, first marked out in diphtheria and tetanus, are closely allied to the poisons ricin, abrin and snake venom, but, unlike other poisons, recovery from a non-fatal dose confers a partial immunity which can be rapidly increased by repeated and gradually increasing doses. Pfeiffer found that in cholera, typhoid, tuberculosis and others that the toxins are so closely bound up in the body of the germ that they are given off only when the germ is disintegrating. Increasing, non-fatal doses of these organisms do not produce an anti-toxin as in diphtheria, but an immunity to that particular germ.

It is difficult to understand how these organisms act in the body since apparently they must die in order to liberate their poison. The poison of staphylococcus is pyogenic and the poison of tuberculosis will produce tubercles after the death of the germ itself.

These toxins are made up of a number of different toxic compounds as has been shown in tetanus. Metshnikoff, seeking an explanation of immunity, discovered the phagocytic action of the wandering cells of the blood in certain crustaceans and proved this to be true also in the higher animals. Nuttall, on the contrary, working on his so-called humoral theory, proved by experiments the natural bactericidal qualities of blood serum. This, in some instances, increased with immunization, in others diminished. This quality was lost on standing or heating to 55° C for thirty minutes. This serum can be revived by the addition of a small amount of fresh serum from another animal. Experiments along this line lead to the discovery of the power of blood from one animal to take that of another when injected into the second animal (hemolysis). This power can be greatly increased by repeated injection. Other lytic sera having action on almost any cell in the body (leucocytolytic, nemolytic, nephrolytic or spermatoric) can be produced in a similar way. In all these lytic sera there is one body not destroyed by heating and a second which is so destroyed but restored by fresh blood serum.

The specific substance (immune body) is artificially produced, whilst the complimentary body or bodies are common to the blood of all healthy animals. These facts were accepted by Metshnikoff, who claims that the lytic substances are produced by the phagocytes, by a process of phagolysis. The complementary body can be temporarily increased by the production of leucocytosis. The complementary bodies are removed from the blood by necrotic tissue, alcohol poison, anemia, etc., with consequent loss of natural immunity. In explanation of acquired immunity or the production of lytic sera Ehrlich has likened the essential molecule of the cell to a nuclear ring with side chains, comparable to the central nucleus of an aromatic compound, with its side chains of hydroxils or other atomic complexes. The central nucleus to contain the regenerative power and the chains the mechanism for taking nutrition to the cell.

If the toxin molecule is sufficiently like the normal food molecule it is picked up by these chains with partial or complete destruction of the cell and chains. If the destruction is partial regeneration and overproduction, a well-known fact in general pathology, takes place. By the injection of fresh doses of the toxin this process is repeated while so many side chains have been formed that they no longer remain attached to the cell, but appear in the blood as antitoxin. In acquiring a bacterial immunity the process is the same, the bacteria being taken up and destroyed by these side chains which are themselves used up. These are replaced and the process repeated by fresh injection of bacteria till the chains are cast off and appear in the blood of the immune or intermediary bodies.

This theory brings the processes of nutrition and acquired immunity very close together. These theories are supported by the behavior of certain compounds in organic chemistry. Among other good results of these experiments is the discovery of a practical and certain method of detecting human blood. WILSON.

CONCERNING THE ROLE OF INTRACELLULAR CATOLYTIC PROCESSES IN THE PATHOGENESIS OF MALIGNANT NEOPLASMS. (By John C. Hemmeter, M. D., Ph. D., Am. Journ. Med. Sciences, April, 1903.)

One of the established facts of present physiology is that cells of mammalia may change their form when acted on by either intrinsic or extrinsic influences. Virchow says there is no distinct line between "physiological and pathological processes and that the latter are physiological processes taking place under difficult conditions."

Shall the cause be sought in some quality inherent in the cell or in some poison or micro-organism without the cell? The supposed existence of congenital embryonal cells is of no value as it does not explain the cause of their suddenly becoming active and assuming malignancy. In parasitic diseases it is the bacteria which transfer the disease and the cells of the newly infected organ participate in the growth. This is not true of the metastases from cancer. If the parasite theory is to stand, it must be shown that the parasite lives in the cell, at least one parasite to each cell, which parasite must multiply as rapidly as the cell. Transplantation should be possible between animals of the same species. Primary carcinomas should occur more frequently as multiples. The cells of the newly invaded organ should participate in the new growth and since this latter is not true, there must be a particular parasite for each type of cell.

Hemmeter's attempts to transplant adenocarcinoma from the human stomach to dogs, cats and guinea pigs were unsuccessful. He thought that since it is so common for human gastic ulcer to become malignant that a similar process could be produced in dogs artificially. Attempts to transplant gastic cancer from one dog to another were unsuccessful. Suspended particles of a canine gastric adenocarcinoma were injected in the margins of experimental gastric ulcers in eight dogs. Five died; three lived three months and developed symptoms of gastric cancer. Two of these showed adenomatous proliferation. Similar experiments in ten other dogs, using a cell free and sterile extract, produced in four of them adenomatous proliferation, but the malignancy of the growth is doubtful. Hence the incentive to growth was given by some substance capable of passing through a Pasteur filter, if, as is supposed, the filter stopped all micro-organisms. As in one case carcinama developed spontaneously from a gastric ulcer, it is certain that the cells of the stomach are capable of producing the tumor forming agency if it can be proven that the agency is not a bacterium. Comparing the relative osmotic tension of normal and cancer cells of the same organ, he finds that normal cells in salt solution, isoteric with blood serum, show no change, while the cancer showed contraction. One-fourth of the cancer cells did not show this contraction and he attributes the occurrence to a diseased condition of the cell. In a cancer of the breast this same phenomenon was noticed when the cells, normal and cancerous, were placed in the blood plasma of the patient. Normal cells, observed in cancer juice from a cancer of the same organ, show swelling. Cancer juice will cause erythrocytes of normal and cancerous human beings to lose some of their coloring matter. This substance may partake of the nature of the hemolytic substance which can be produced artificially in the lower animals.

Whatever the substance or agent may be which causes a benign cancer gastric ulcer to become adenomatous, it is destroyed by heating to 60° C. For while four animals out of ten, injected with the unheated filliate, developed adenoma no such results followed in six animals similarly afflicted, when injected with the fililate which had been heated to 60° C. Much remains to be studied out in connection with cell growth and its causes, but the modern view that cancer metastases can be effected by a single cell is in support of the theory that the tumor producing agency is located within the cell. The connection between cell growth (building up of protoplasm) and the enzymotic (catolytic) agents has not been demonstrated, largely because of the difficulty of isolating the enzymes. A slight hope of advance lies in showing the differences in temperature which the protoplasm and the ferment can stand. For all experimental adenomas so far produced, none have caused metastases and their existence could be proven only by the microscope. Furthermore, it is possible that their development might have stopped and scar tissue be the ultimate result. WILSON.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Vol. 24. 1902.

This collection contains papers of more than ordinary interest. There are memoirs of John Ashurst, Jr., the surgeon, and of the celebrated American clinicians, Alfred Stille (by Osler) and J. M. Da Costa; and of William Fisher Norris, the oculist. The first three were sometime presidents of the College of Physicians. In addition to their eminence as professional men, they were all men of marked personality and character. They were as well students and writers, and had been pupils of the medical leaders of their day. Norris studied under Alt; Stille was a disciple of the Great Louis, who turned out that famous band of American practitioners, among whom were O. W. Holmes, James Jackson, Jr., George Shattuck, Jr., and John C. and Mason Warren, of Boston; Alonzo Clark and Valentine Mott, of New York, beside many others. High character with the undying enthusiasm which ever stimulated them to lives of painstaking work, constituted the keynote of their success. In the words of Alfred Stille: "Only two things are essential—to live uprightly, and be wisely industrious." Another remark of his is worthy of repetition: "When nothing avails to ward off the fatal ending, it is still no small part of the physician's art to rid his patient's path of thorns if he cannot make it bloom with roses."

Ashurst's "Surgery," Stille's "National Dispensatory and Materia Medica and Therapeutics," Da Costa's "Medical Diagnosis" and Norris' "Text Book of Ophthalmology" are classical productions of these master minds, and only feebly represent their contributions to medical literature. But it is mainly their greatness as men which makes the perusal of their lives a stirring incentive to go and do likewise—in so far as our abilities will permit.

Among notable papers in this collection are: "The Surgery of Brain Tumors and Description of a Case Showing That Brain Tumors May Be Localized by the Roentgen Ray." Charles K. Mills.

"Two Cases of Adiposa Dolorosa," by F. X. Dercum. Only twenty-two cases of this disease, which presents such remarkable features—painful, fat masses—have been so far reported.

"Snake Venom," by Simon Flexner and Hideyo Nogudi. This original contribution to the subject relates the results of experiments showing the effect of venom in agglutinating and then dissolving blood corpuscles; its effect on destroying the bactericidal properties of blood serum; the effect which the brain cells have in removing and absorbing the toxic principles of venom; and finally, the antagonizing action of Calmette's Antivenin in neutralizing venom and removing that effect of venom which leads to destruction of the blood.

There is a very learned and exhaustive contribution on "Multiple Serositis," by A. O. J. Kelly.

"Analysis of Human Milk the Basis of Feeding of Infants," by Arthur V. Meigs, who is the father of milk analysis and infant feeding. The points which Meigs maintains in this paper are that the percentage of nitrogenous matter in milk is not much below or above 1 per cent., whether we call it casein, proteids or albuminoids—that it is a very constant factor, and also that the composition of milk does not change during the period of lactation. As a natural corollary of this, it follows that infants' artificial milk should not contain over 1 per cent. of proteids and that the composition of the milk should not be changed during the first six or even nine months of infantile life. The discussion was most enlightening, being participated in by the leading pediatrists of the country, and exhibiting the most diverse views on this vexed subject. Winters denounced in the most clear and convincing manner centrifugal cream, affirming that by this method the proteids were almost removed entire, and also that Pasteurization was equally bad in breaking up the combination between proteids and inorganic matter, rendering the latter useless to the economy and engendering scurvy and rickets. Casein, he thought, represented only part of the proteids; that there was some other albuminoid substance not yet discovered. Certain proportions between albuminoids and fat in artificial milk should be observed, and a table was given containing these. Croser Griffith thought that neither centrifugalization nor Pasteurization were often harmful. There seemed to be a general unanimity in increasing the strength of the artificial milk during the first nine months of the infant's life, until the composition of the food approximated that of cow's milk, although no one assailed the chemical statements of Meigs, who was regarded as the authority on this part of the subject.

"An Analysis of Sixty-Five Cases of Gastroptosis," by J. Dutton Steele and Albert P. Francine, is the result of a very careful statistical study of this common but interesting condition, with its symptom-complex. In women, symptoms of gastric motor-insufficiency are generally due to gastroptosis; the chemistry of the gastric contents is variable. There is always some pyloric dilatation, and displacement of the stomach is secondary to this. The stomach and colon were both inflated with gas during the clinical examinations in these cases. The transverse colon shares in the displacement of the stomach, assuming an M or Y shape; the hepatic flexure may be displaced as far as the umbilicus. The splenic flexure cannot be determined, as it is hidden behind the stomach. Right movable kidney was found in 50 per cent. of cases. Neurasthenia, often present, is probably due to the same causes as ptosis of abdominal viscera, i. e., some constitutional weakness, but it is improbable that the neuresthenia is caused by the gastroptosis or vice versa.

Among other papers of marked ability are: "Bence-Jones Albumosuria, With a Report of Three Cases, and a Review of the Literature," by James M. Anders and L. Napoleon, Boston.

"Infection of Ovarian Cysts During Typhoid Fever; Report of Two Cases; Operation—Relapse—Recovery," by Morris J. Lewis and Robert G. LeConte.

A Study of Two Cases Nourished Exclusively Per Rectum; With a Determination of Absorption; Nitrogen Metabolism and Intestinal Putrefaction," by David L. Edsall and Casper W. Miller.

WINSLOW.

WHAT OTHERS HAVE SAID ABOUT US.

We have received the first number of NORTHWEST MEDICINE, a new medical journal published by the Washington Medical Library Association, at Seattle. The journal is excellently gotten up, well printed and on good paper and its 58 pages of reading are filled with good matter. The journal has a large territory to draw from and being entirely owned and controlled by medical men, it should, and we believe it will, be supported by the better class of physicians in that territory. We shall be rivals, for to some extent our territories overlap, but the rivalry will stimulate and strengthen us both, and each being owned by independent bodies of medical men, we shall hope to demonstrate the superiority of such journals over those owned outside of the profession.—*St. Paul Medical Journal.*

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It has been said that there are too many medical publications, but, in this age of investigation, we do not believe there can be too many sound and well-edited journals. NORTHWEST MEDICINE is published in Seattle under the auspices of the Washington Medical Library Association. It is intended that it shall be neither edited nor maintained in the interests of any particular individuals, or for the advantage of any particular section. It is the desire of the promoters to enlist not only the support of the physicians in their own state but those of that great and rapidly developing northwestern territory. The mechanical makeup is excellent and we wish this new contemporary every success.—*The Cleveland Medical Journal.*

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We have to acknowledge the receipt of the first two numbers of NORTHWEST MEDICINE and incidentally to congratulate the promoters of this new journal upon the very successful results which have followed their efforts in producing a valuable addition to medical journalism. The editors and publishers of this new journal deserve the congratulations, not only of their local profession, but the fraternity throughout the country for the excellent work displayed in this first number. It shows numerous evidences that the men back of it possess the peculiar knowledge necessary to make a medical journal a success. As they say in their editorial department, there is abundant reason for publishing local journals. They fulfill a need that a large weekly published in a large city among the few medical centers cannot fill. They are the means of uniting the members of the profession locally. Many physicians will contribute articles to a local journal that would not to a large weekly.—*Charlotte, N. C., Medical Journal.*

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NORTHWEST MEDICINE is the title of a promising medical journal recently established at Seattle, Washington, by the Washington Library Association. We are glad to welcome this new journal as one of our exchanges. It will bring news from the profession in the northwest which has thus far neglected local medical publications. West of Minnesota and north of California there has hitherto been but one medical journal published. We are glad to note that the journal will be neither edited nor maintained in the interest of any particular individuals, nor for the advantage of a special section. The function of a local medical journal is admirably set forth in the first editorial of this new periodical, and if it can realize the high aim therein expressed it will accomplish great good not only for Washington and adjacent states, but for the entire profession.—*The Columbus Medical Journal.*

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The Washington Medical Library Association began the year with the publishing of NORTHWEST MEDICINE. The journal is under the control of medical men; is published to afford the physicians of Washington with a medium of communication, and to present the medical items of their corner of the Union to the medical world. We like the contents of the first number and its general make-up, and wish the Association abundant success in its laudable enterprise.—*Bulletin of the American Academy of Medicine.*

NORTHWEST MEDICINE is the latest accretion to the ranks of medical journalism. It is an octavo of about sixty pages, published monthly at Seattle, Wash. It is neatly printed and well edited, and will no doubt prove a success.—*The St. Louis Medical and Surgical Journal.*

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NORTHWEST MEDICINE.—The first number of this journal was published January, 1903. The publication, which is designed to assist in the improvement and strengthening of the profession in the Northwest, will be published monthly by the Washington Medical Library Association.—*American Medicine.*

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NORTHWEST MEDICINE is a new and neat aspirant for support from the Northwestern practician. The initial number contains some really good illustrations and a most readable article—"The Etiology of Eclampsia."—*The Surgical Clinic,* Chicago.

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NORTHWEST MEDICINE is the title of a new journal that has recently appeared and is published at Seattle, Wash. The first number bears the date of January, 1903, and it presents a good front.—*Buffalo Medical Journal.*

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The first issue of the Seattle magazine under the title of NORTHWEST MEDICINE has been received. The magazine reflects credit upon those who have had to do with its publication.—*Medical Sentinel.*

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NORTHWEST MEDICINE, Vol. 1, No. 2, is before us, it is a neat journal published by the Washington Medical Library Association, Seattle, Wash.—*The Southern Clinic,* Richmond, Va.

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NORTHWEST MEDICINE is the latest, published by the Washington Medical Library Association, Seattle, Wash.—*Medico-Pharmaceutical Journal.*

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A new journal made its appearance in the medical field at the beginning of the year, NORTHWEST MEDICINE, published monthly by the Washington Medical Library Association, Seattle, Wash.—*Merck's Archives.*

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The first number of NORTHWEST MEDICINE, of Seattle, Wash., was published January, 1903. The publication, which is designed to assist in the improvement and strengthening of the profession in the Northwest, will be published monthly by the Washington Medical Library Association.—*The Medical Book News,* Philadelphia.

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NORTHWEST MEDICINE, Vol, 1. No. 1, comes to us in very neat style, and it is a clean, creditable publication in every respect. We bid it welcome.—*Southern California Practitioner.*

* * *

Seattle has given birth to a new medical journal—NORTHWEST MEDICINE. The journal comes to us filled with able articles, well printed and well edited. We wish our friends in the north every success.—*Pacific Medical Journal.*

REPORT OF CONTAGIOUS DISEASES

To the Washington State Board of Health for April, 1903.

	Smallpox.		Scarlet Fever.		Diphtheria.	
County.	*Cases.*	*Deaths.*	*Cases.*	*Deaths.*	*Cases.*	*Deaths.*
Adams	...	..	..	..	1	..
Clarke	21	..	..	..	2	..
Chelan	1	..	1	..	..	..
Lincoln	2	..	..	..	7	..
Spokane	...	..	21	1	1	..
Okanogan	7	..	..	..	..	..
Stevens	...	..	..	..	1	..
Whatcom	4	..	..	..	1	..
Whitman	1	..	4	..	..	..
Walla Walla	144	..	12	1	2	2
Yakima	2	..	2	1	..	..
Seattle (city)	9	..	32	1	4	1
Tacoma (city)	4	..	7	..	3	..
Spokane (city)	7	..	11	1	3	..
Total	202	..	90	5	25	3

Contagious diseases in cities of the first class are not included in the county reports.

Smallpox was reported from eight counties during April, as shown above. In Yakima county all cases have been discharged and the county is now free from this disease. In Okanogan county the seven cases were all in one family that came into the county a day or two prior to the beginning of the first case. In Walla Walla county the 144 cases cover outbreaks in four localities from March 1st to April 30th. In two localities the disease is eradicated and there remain now five cases at Walla Walla and thirty-two cases at Dixon. So far, all cases in this State have been very mild or only moderately severe.

The Oregon State Board of Health reports an outbreak of smallpox of a virulent type in the neighborhood of Prineville, where 75 per cent. of the unvaccinated cases died, while the remainder were all of a very severe confluent type. A few cases occurred in those protected by vaccination, but of a very mild type.

NORTHWEST MEDICINE

June, 1903.

ORIGINAL CONTRIBUTIONS.

PROGRESSIVE PERNICIOUS ANEMIA.*

By S. J. Holmes, M. D.
SEATTLE, WASH.

Through the aid of hematology we have been enabled, within a very few years, to arrive at a more exact knowledge of the diseases of the blood, rendering it possible to more clearly draw the line between primary and secondary forms of anemia, if indeed a primary anemia can be said to exist, and to narrow the classification of the former to two distinct types, viz: chlorosis and idiopathic or progressive pernicious anemia.

It is, as we all well know, first described by Addison and since his classic description no effort has been rewarded by a more complete clinical picture or accurate symptomatic description. While it is true that many of the so-called primary cases of anemia have been taken from this class, to be defined as secondary, there still remain cases with no known cause, which can be definitely referred and it is such a case that I desire to report this evening. Many conditions offer with which anemia is associated, difficult to distinguish clinically from primary pernicious anemia, but by aid of the blood count, hemaglobin estimate and careful microscopic examination of the blood, we may arrive at a more positive diagnosis and without which we believe it impracticable to do.

We know progressive pernicious anemia to be, according to classification, a primary disease of the blood, or blood producing organs, probably the former, characterized by extreme reduction of the number of red corpuscles, with changes in their form and size and a great diminution in the quantity of hemaglobin of the blood, and albumens of the plasma, with a tendency to fatal ending. It occurs more frequently in the cantons of Switzerland, but not infrequently in our own country.

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*Read before the King County Medical Society, Seattle, Wash., May 18, 1903.

Causation.—The causation of the affection, despite the most careful clinical observation and post mortem study, leaves us in doubt as to its true nature. The occurrence of gastro-intestinal symptoms, accompanying so large a number of the cases, with faulty digestion, renders it probable that some toxin or toxins are developed which, passing into the circulation, cause the extensive hemolysis (blood destruction) with all its train of symptoms and anatomical changes elsewhere.

McPhedran,[1] however, discredits this belief, for reasons that in twenty-two cases observed by him, weakness and pallor preceded all gastro-intestinal disturbance.

Berry[2] believes the toxins to be of unknown origin, which enter by way of the gastro-intestinal tract.

Alfred Scott Worthin[3] believes that, while the poison productive of this extreme blood destruction is unknown, it is comparable in effect upon the blood and blood producing organs to the action of toluylenediamine and whether by auto-intoxication or infection remains to be determined; also that the poison of pernicious anemia stimulates the phagocytes of the spleen, lymph, hemolymph glands and bone marrow to increased hemolysis. He also believes that, by the destruction of hemoglobin, further infective products may be formed, which have a destructive action, although not proven. From his cases, eight in number, he infers that in the majority of cases the spleen is the principal seat of hemolysis, as he found no evidences of blood destruction in the liver, stomach and intestinal capillaries.

George Dock[4] states that he never observed a case showing any connection between the disease and intestinal parasites. (Bothriocephalus latus and anchylistoma.) Such a case in any event would necessarily place it in the class of secondary anemias.

Alex. Goodale[5] alone makes the statement that pernicious anemia is a degeneration of the blood due to exhaustion of the hemogenic function, caused by increased demands, occasioned by morbid conditions impairing the nutrition of the blood.

It is thus seen that the theory of a toxin or toxic principle, as now believed by most observers, stands in a causative relation to the hemolysis, and that the nature and source of which is a desideratum for further determination.

Extent of Hemolysis.—The red corpuscles may be reduced to one-fifth or less, the average being about 1,500,000. Hamell reports a case in 1902 in which the red corpuscles reached 275,000, this being, with the exception of a case reported by Quincke, the lowest on record.

Prognosis.—True progressive pernicious anemia was regarded, until within a few years, as a necessarily fatal disease, but later statements are qualified in a full belief that the treatment by arsenic is followed by improvement and cure of cases.

Prof. Osler[6] states that in "40 cases in his wards, 17 died; the average time being one year. In 8 cases within 6 months. The average of 22 cases discharged improved or cured was 16 months." He also quotes Pye Smith's article in the Guy Hosp. Reports, in which twenty recoveries are reported. Also that Coleman in a recent article states that one of the cases treated with arsenic in 1880 was alive and well in 1900. He regards a count below 1,000,000 red corpuscles as of serious outlook.

Cases are likely to relapse and a return to health is by improvement and "back sets." A renewal of red corpuscular elements to nearly normal may lend encouragement, and still may later go on to further destruction. A frequent examination of the blood and estimation of hemoglobin should be made to determine the precise status of the case for clinical symptoms, the patient's appearance and apparent gain may not be satisfactory evidence.

Treatment should not be relaxed, and undoubtedly the greatest improvement may be accomplished by a removal to above sea level, as favoring an increased blood renewal. Rest in bed, sunshine and concentrated liquid diet. Arsenic is extolled by authorities as the best remedy *"par excellence,"* for the disease. If well borne, it should be given in increasing doses to physiological tolerance. Iron can be given in the intervals of ceasing the drug, or continued with it. Stomach and intestinal lavage with intestinal antiseptics are recommended. Red bone marrow is also recommended, but its usefulness not established.

Report of case.—Was consulted on Dec. 1, 1901, by Mr. F. K., American, aged 47 years, weight 175 pounds. Occupation, shingle merchant. Family history good. Never suffered from any disease except "indigestion" twelve years previously, and having the appearance of a vigorous man. He complained of increasing weakness of the lower extremities, palpitation of the heart, and inability to apply himself to business. He was well nourished; capillaries injected and mucous surfaces of good color; tongue clean, no epigastric tenderness, and sleep sufficient. The heart sounds were normal; lungs, liver and spleen free from evidence of disease, and urine negative.

He was thought to be suffering from prostration and too close confinement, and advised to take recreation and, if necessary, give up his business. Strychnine was prescribed as a tonic. I did not see him again and, as he failed to satisfactorily improve, he decided to go to the Springs, in this State, in March, 1902. He remained for three weeks, improving, as he states. Soon after his return his symptoms recurred in an aggravated form. The heart became more disturbed, shortness of breath with faintness upon efforts to move about came on, together with continuous fatigue. He could do no work, and severed his business connections. I learned that his difficulty in moving about had become so great that he had been confined to his bed and was extremely pallid.

In November, 1902, eleven months from time of commencing illness, he returned, without advice, to the Springs. At this time his condition was so bad that he was taken to the train with difficulty, and was a source of alarm to his family and friends. He remained but a few days, as it was feared he could not survive. He was carried to the train, unable to sit up, and upon his arrival in Seattle I saw him again, Nov. 21, 1902.

Appearance.—Patient in bed, skin waxy, with yellowish tint and an irregular brown pigmentation of the neck and portions of chest. Sclerotics tawny or icteric; mucous surfaces and nails colorless; face generally edematous, body rotund, muscles flabby. While not giving appearance of losing flesh he claims to have lost about fourteen pounds. There was no disturbance of the stomach, bowels costive.

His respirations were slow and slightly labored; pulse hard and quick, but compressible; jugulars pulsating; temperature 100°; mind confused. He was extremely weak, and had the appearance of a hopelessly sick man.

Physical Examination.—Heart pulse rate 108. There was a loud, blowing systolic murmur heard over all portions of the heart, base and apex, not propagated to the left at apex, but in the direction of carotids at base. There was no hypertrophy or dilation. (murmur hemic.) Lungs normal; lymphatic glands free from enlargement; liver and spleen free from enlargement; stomach and bowels free from evidences of disease.

Urine: Specific gravity 1010, dark in color, no albumen or sugar.

Urinated every two hours; quantity 60 oz. in twenty-four hours.

Prescribed Fowler's solution, three minims, three times daily, to be increased one minum each day; tincture nux vomica, ten minims, three times daily; peptonate of iron and manganese, two drams, three times daily, and red bone marrow; broths every two and one-half hours night and day, and enemas of normal salt solution, one pint twice a day.

November 25—Fourth Day—Morning temperature, 99 1-5°. Evening temperature, 99°. Pulse 104. Patient delirious. No vomiting. No diarrhea, and tolerating the arsenic well. Retains salt solution.

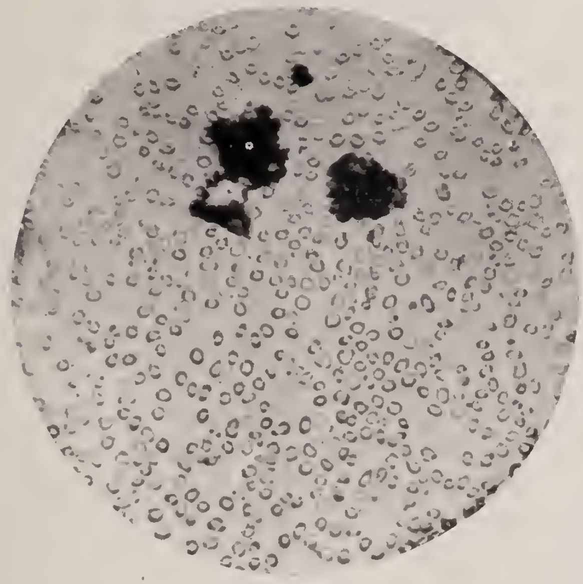

Fig. 1—Nov. 25.

I called in Dr. C. A. Smith for a blood count, which showed the following result: red cells 1,640,000; hemoglobin 20%. No leucocytic count was made.

December 5.—Fourteenth Day.—Red cells, 1,600,000, 32%;

hemoglobin 35%; color index 1.06; white cells, 10,770; polymorphonuclears, 64%; large lymphocytes, 15%; small lymphocytes, 18%; eosinophiles, .02%. Megaloblasts; normoblasts; myelocytes.

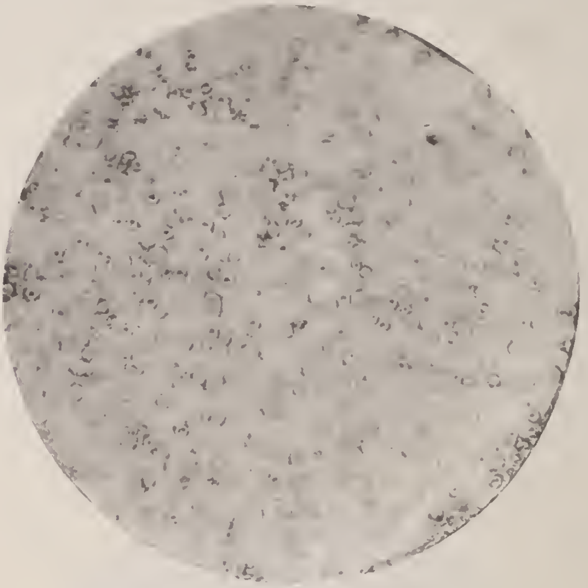

Fig. 2—Dec. 5.

Morning temperature, 99°; evening, 99 4-5°. Still delirious. Capillaries of eye show slight injection. Taking Fowler's solution, twelve minims, thrice daily. Other treatment still continued.

December 13.—Twenty-second Day.—Fowler's solution, thirteen minims. Commenced decrease of dose, due to tenderness over stomach. No diarrhea and no vomiting present. Has eructations.

December 15.—Twenty-fourth Day.—Blood count: red cells 2,205,000, 44%; hemoglobin, 45%; color index, 1.02; white cells, 2,710.

Temperature, 99 4-5°. Mucous surfaces show more color, capillaries in ears and over nose showing plainly. Patient free from delirium. Quantity of urine reduced. Face free from edematous swelling; has edema of ankles, legs and scrotum.

December 21.—Thirtieth Day.—Respiration twenty, easier. Temperature, normal. Patient improving in general. Fowler's solution, eight minims. Bone marrow and peptomangan still continued.

December 30.—Thirty-ninth Day.—Pulse 88. Temperature,

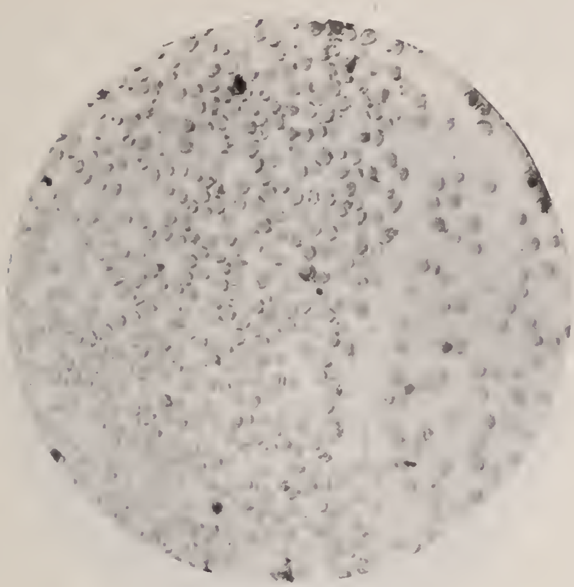

Fig. 3—Dec. 15.

normal. Skin over body shows good color. Mucous surfaces darker red. Edema of legs much lessened. Face absolutely florid. Light diet ordered with broths between the three principal meals. Fowler's solution discontinued.

January 9.—Forty-eighth Day.—Improvement marked. Kidneys less active. Bowels move without assistance. Fowler's solution again taken. Is now taking baked fish, stale bread, baked apple, custard and cocoa at the principal meals, with broths in the interval.

January 21—Sixty-first Day.—Fowler's solution again discontinued. Diet still further increased.

February 1.—Seventy-second Day.—Patient sitting up and slowly moving about. Appearance of skin normal. Mucous surfaces red. No sense of fatigue. Pulse 80. Respiration, 18. No dizziness. No edema. Mind clear, patient cheerful. Is now taking liberal diet.

February 6.—Seventy-seventh Day.—Takes walks out doors, with no fatigue and no embarrassment of respiration.

Blood count: red cells, 3,583,200, 72%; hemoglobin, 70%; color index, .97. White cells, 4,284.

Very little poikilocytosis; average uniformity in size of reds.

No nucleated reds. No micro or macrocytes. An occasional myelocite.

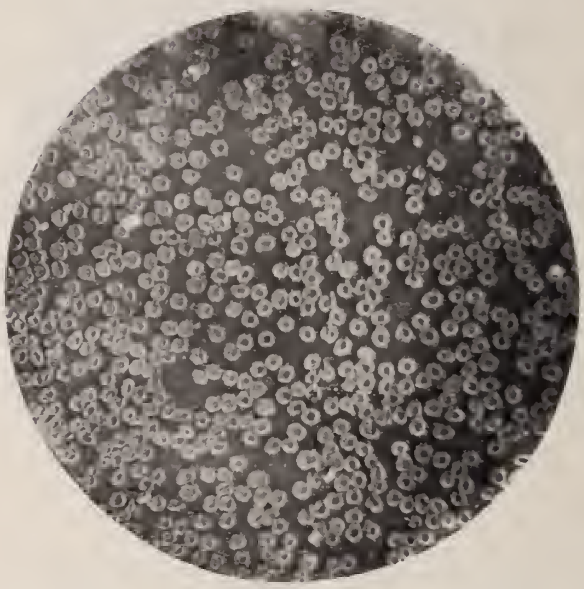

Fig. 4—Feb. 6.

I advised him to go to California for sunshine, which he did on Feb. 18.

While in California he took long walks and climbed elevations without fatigue or other discomforts. He gained, while there, nine pounds in weight, returning to Seattle three months from time of departure.

May 11.—Five months and twenty days after commencing treatment.—Appearance that of a well man. The face is florid. Nutrition of body good. Weight 165 pounds. He is strong and active and states that he "never felt better in his life."

Examination of blood: hemoglobin, 70%; red cells, 4,200,000; color index, .85. White cells, 7,885.

Microscopy still shows some slight variation in size and shape in the red corpuscles. There are no nucleated reds, small or large

Remarks.—The case typifies one of progressive pernicious anemia, with all its gravity, which has reached the "cross roads," affording no positive indication other than the man's appearance, continuous gain, regeneration of blood, with loss of most of its most menacing corpuscular changes, as to what the ultimate outcome will be. The improvement has been uninterrupted to date and, with the gastro-intestinal functions in good working order, and the greatest care exercised at all times to preserve them in this condition, a great promise seems to offer.

You will note that the hemoglobin increased during the first nine days of treatment to the extent of 15%, with a loss of 40,000 red corpuscles. During the next ten days the hemoglobin increased 10% and the red corpuscles increased 605,000. In the next twenty-two days the hemoglobin increased 25% and the red corpuscles 1,378,000. In the three months' stay in California, he has gained nothing in hemoglobin but 616,800 in red corpuscles.

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METHODICAL TRAINING IN SURGICAL TECHNIC.

By R. C. Coffey, M. D.

PORTLAND, ORE.

Unfortunately for the rising members of the profession, for nurses, and the public at large, many of our great men who have written our text books were educated prior to the development of anything like a perfect surgical technic. The consequence is that, while they have developed a good technic for themselves, they began to build their structure upon a scaffold, as the bed rock had not in reality been discovered at that time. This has been the case in all our lines of education in medicine. Those of us who were educated from ten to twenty years ago had a very meager training in the fundamental principles. We have learned by association, reading and our own experience, the practical principles which we should have learned in school. To-day our schools are beginning by requiring a good preliminary education, including all the collateral branches which form valuable accessories to the science of our profession. We no longer begin teaching medicine by having students attend clinics the first year. The student goes into the laboratory and begins his course from the foundation so that when he reaches the practical work, he has come directly to the point, and has had no lines of thought which would be likely to deviate him from the true path.

For some reason, however, the most practical of all the subjects has not been taught "from the ground up," so to speak. I refer to the teaching of surgical technic. A nurse is asked to prepare herself and patient for operation. If asked as to how she prepares her hands she will be very much as most of us were when we began to practice medicine. It would take us an hour to remove a splinter from a patient's finger, and even then we did not know whether or not things were clean. We would go to our text books and read, "Thoroughly scrub your hands." Immediately the question would come up, "How shall I scrub my hands?" Authors of text books have seemingly taken it for granted that everyone kenw this by intuition. The same answer has come with reference to the preparation of the patient, the same as to the conducting ourselves and the handling of various articles which pertain to the dressings, etc. The result of this teaching has been that the young doctor or nurse, by fumbling about in a thousand different directions has finally become discouraged and said: "Well, anything will do anyway, as our teachers apparently do things so easily.

The result of such training has been that only a too small percentage of doctors and a still smaller of nurses is properly fitted to come in contact with a wound or anything pertaining to a surgical operation. Yet if such persons are called upon to assist or to perform an operation, you will be impressed with the great amount of care and the excessive amount of bluster they will make as to aseptic technic. I have seen such an operator go to the trouble of thoroughly cleansing his hands, as he thought, tying up his head and face, and then go to the window and lift it, to the transom and close it, without ever thinking he had made a breach in his technic.

In probably no other sphere does the adage, "A little learning is a dangerous thing," better apply than in surgery. The student or nurse, watching the work of an expert surgeon or surgical nurse, decides it is easy and that great care is unnecessary. This accounts for the fact that students graduating from small colleges, not having clinical facilities and opportunity for practical work, are much more apt to plunge headlong into difficult major surgery than those who have had fine clinical advantages while in school and a thorough hospital training afterward, thus verifying the poet's saying, "Fools rush in where angels fear to tread."

Now the question is, what is the shortest and safest route to efficiency in surgical technic. First we want to know the dangers and how they approach us. Second, we must know how to evade and battle with them. We will refer more especially to training of nurses in this set of papers as the object will be to bring out the details of the work which is performed largely by nurses and assistants, and not to presume to teach surgeons who are already established in their work. There are many capable men in this country, however, who are doing very good work and especially in emergency surgery, who can master a technic for themselves and yet are hampered largely because they cannot afford to keep a trained nurse, or cannot get one, or because they cannot take time to train one, which is a task of years. Doctors all over the country are forced to take nurses who are positively dangerous in obstetrical cases, simply because the doctor has never given the time to details of cleansing and preparing or to teaching a nurse how to clean or prepare a patient for an obstetrical operation. Even in established training schools with thorough trainers it is very difficult to establish a good technic, except in those nurses who have an insight into affairs, which is so keen that she instinctively carries out a good technic because of her very cleanliness of conscience.

It shall be the purpose of this series of papers to at least suggest an outline which may curtail the work of doctors who must employ nurses of their own training and for the purpose of urging a more thorough and methodical training in our hospital nurses and assistants in this line of work. It is, however, I believe, well for a surgeon, who has had very little experience, to thoroughly drill himself in some one method. The first thing we wish to impress upon our pupils in this line is the great danger and the great sense of responsibility which rests upon the nurse and the doctor. We still have sayings which are practically as absurd as the old one of twenty-five years ago when a woman, dying with puerperal septicemia, was said to have "caught cold." The surgeon has suppuration in a clean case every once in a while. He says: "Of course I am not to blame"; he is too courteous to say that the nurse is to blame. The consequence is that he simply says: "They will occur and we can in no way account for it." The first point for us to learn therefore is that, when pus occurs in a clean wound, some one is at fault; and if patients die of sepsis, in almost all cases we could, if we only knew it, trace the cause to some breach in technic, either as to the preparation of the person, the assistants, the surgeon, or to the preparation of the material used, or other surroundings existing at the time of the operation, or a mistake in the detail work of the surgeon himself.

In considering our own work it is very difficult for us to avoid comparing our results of to-day with those of the best men ten years ago, instead of comparing them with the results of the best men of to-day. We do not stop to think that surgeons who in many classes of cases lost 25 per cent. of their patients ten years ago, lose only 2 per cent. of the same class now, so that, if we lose 4 per cent. of our patients, we are exactly in the same proportion to the best operator as when he was losing 25 per cent. and we were losing 50 per cent., for the same principle is at stake. It is a serious thing to commit a murder or accidentally produce death when we know that care on our part could have prevented it. Exactly the same principle is at stake as to whether we have destroyed one life or twenty by omission or commission.

In case of one surgeon losing 10 per cent., as against a better surgeon losing 2 per cent., and more especially if a poor surgeon is losing only 4 per cent., as against the better surgeon losing 2 per cent., the poor surgeon will be entirely unable to see the difference and will think he is actually doing as good surgery as the man losing only 2 per cent. Consequently he sees no need for improvement in his methods, and in fact is apt to think he is equal or superior to the better man. It is for this reason that we are now seeing articles by certain men of the older school claiming that a very elaborate technic is going out of existence. This is a dangerous doctrine and only shows an absolute ignorance of detail on the part of the man who is doing the writing.

A few years ago he supervised all his dressings, and instructed all his nurses, made his own ligatures, saw to the sterilizing of his own instruments, and thought it very elaborate. He took no care in protecting himself from infection, neither did the nurses at that time. Everything was left until the time of the operation, the consequence being that an elaborate technic was necessarily carried out at this time and with very poor results. To-day the operator in the better regulated hospital has nothing to do but wash his hands. The nurses on duty in the operating room are allowed to touch no septic cases. If so, all septic matter is removed at once All materials are sterilized and protected in every possible way. The nurses are prepared and everything in the operating room sterilized before the surgeon appears on the scene. He comes in, washs his hands, handles everything in the room, has good results, and straightway concludes there is no use for an elaborate technic. The surgeon does not fully appreciate the fact that two or three nurses are isolating themselves from all septic matter and devote their time to preparing, sterilizing and re-sterilizing supplies and caring for the operating room, consequently he thinks nothing is being done. Let him follow his nurse and assistants and he will soon learn that he is carrying out a very elaborate technic in spite of himself. It is true that we have simmered things down until we have cut out the unnecessary moves. We are applying the same principles in the preventing of sepsis in surgery as in the preventing of contagious diseases, by quarantining, vaccination, etc. It is to these details that we are to look in the future for our increased good results, and it is therefore necessary that we enter into detail and into a systematic method of improving our nurses and assistants, first, as to the dangers of contact, then as to a method of most quickly and effectually avoiding these dangers. We have been in the habit of instructing a beginning nurse or midwife concerning these dangers as if we were talking to a doctor who has studied medicine for four, or a nurse who has studied for three years, consequently she knows no more of the dangers or the method of avoiding them than before; in fact she has learned just enough to be dangerous. It is this particular point that I wish to emphasize throughout this paper.

The following articles, or the following continued article, on Methodical Training in Surgical Technic, will appear to many extremely elementary, and so it is, but it is these elementary principles which we have unfortunately not learned. I will first try to explain the dangers and the method by which infection may take place in obscure ways, taking it for granted that even the laity know many of the gross dangers. In attempting to make myself more clear I will relate a few illustrative cases to bring out the various methods by which these obscure infections may occur:

A nurse carelessly dresses an infected hand. During the dressing she is asked to bring water. She rushes to the faucet, thoughtlessly turns the cock, draws water and goes on with her work. In an hour a case of intestinal obstruction comes for immediate operation. A nurse is preparing a solution with what she thinks are clean hands; she draws water for her solution and with wet hands takes up the sepsis the other nurse has just left. A doctor says, "Hurry, put on my apron." She excitedly seizes a sterilized apron and the very finger that takes up the sepsis from the faucet, takes hold of the apron about the waist. The doctor feels perfectly sure that the apron is sterilized so, during the operation, he freely handles his apron, his hand coming in contact with the same spot just touched by the nurse, picking up the sepis. His patient dies some days afterward with peritonitis and no one can imagine why the patient died. Some doctor or nurse of wider experience comes to the rescue with the consoling words, "No matter how careful you may be or how perfect your technic, you will have it occasionally."

A nurse is attending and dressing a very septic case. Each day she goes out for a walk. She dons her gloves, and goes out without cleansing her hands thoroughly. In a few days her patient dies and she being tired goes out for a six week's vacation. As she is in the sun a good deal she wears her gloves. Upon her return she is called to see a case in labor and finds the patient is flowing. She washes her hands the best she can without a brush or antiseptics and proceeds to examine the patient and, finding her in labor, the doctor is summoned, and spends a quarter of an hour in thoroughly cleansing his hands. The delivery is accomplished without trouble and everything is carried on with strictest care. Three days afterward the patient developes septicemia and three days later dies. No one can explain it on any other ground than that they will occur in the practice of the very best doctors. The nurse has not been near a septic case for six weeks, therefore it is thought impossible that she could infect her. It finally turns out that the nurse has constantly been wearing the same pair of gloves she wore while dressing the septic case six weeks before, and by this negligence sacrificed a valuable life.

A patient has been prepared for an abdominal section. Abdomen shaved, etc., and brought to operating room to be cleansed again. A nurse, who has been first assistant to all the septic dressings on the floor, is brought in to scrub the patient the second time. She washes her hands partially and proceeds to scrub the patient for final operation. She scrubs with a brush and, her hands being wet the germ-laden dirt, it is constantly soaking from under the nails and with the brush is harrowed into the skin. She washes off the soap, pours on her alcohol, then ether and, with the same hands and nails reeking with sepsis, quickly dries them, thinking they are perfect antiseptics, and then by pouring over her bichloride she is absolutely sure everything is clean. The abdomen had no septic germs on it until she scrubbed it the last time. During the scrubbing infective germs have floated from under her nails and by the scrubbing have been worked into the skin around the hair follicles and have not been touched by the antiseptics. The doctor is careful and even wears gloves, as do all assistants, but about five or six days after the operation the patient's temperature goes up and the doctor discovers each of his stitches surrounded by an abscess. The stitches are removed, the wound opens up, heals by granulation and after awhile the patient develops a hernia. Our good and kind friend braces herself and doctor with that peace-bringing consolation, "They will occur under all conditions and we know not how."

A case of septic appendicitis is brought into a hospital and the operation is performed immediately. A large amount of pus escapes, soiling all the towels and dressings. The nurse who is doing the dressing with her bare hands removes the soiled towels, etc. Just as she has this completed the order is given to release the Trendelenberg position, which is done by pulling a chain under the table. The nurse, with her hand foul with the worst form of sepsis, reaches under the table and, by pulling the chain, releases the catch. The very next day a patient comes in to have a ventrosuspension done and a portion of one ovary removed. Soon after the operation begins the patient suddenly becomes cyanosed and dangerous symptoms appear. The doctor thoughtlessly reaches under the table to release the catch holding the table leaf, in order to allow a Trendelenberg position. His wet hand takes hold of the chain at exactly the place the nurse did the day before, and finding it hard to release, holds the chain for some time in getting it loose. The anesthetist insists that the operator should make all possible haste, so he simply dips his hands into the water and goes on with his work. Three days later a violent peritonitis develops, which produces death in a few hours. This original appendicitis case is put in private room after the operation. The next day, while the doctor is dressing the patient, the nurse in attendance, who is handling the soiled dressings, is asked to bring steriled gauze packing at once. She seizes the door knob with her septic hands and hurriedly brings in the dressings. While the doctor is doing the dressing the nurse stands with her hands resting upon the bed post, thus leaving her septic imprint again, the patient dies a few days later. A case of partially retained placenta is the next day put in the same room. The doctor, while curretting on the bed without anesthetic, finds that his light is not good and, reaching over unconsciously, takes hold of the bed post where the nurse had two days before rested her hands, in order to move the bed. He then dips his hands into a bichloride solution. Finding a blood clot covering the end of his curette he removes it with his fingers and proceeds with his work. The assistant surgical nurse has come into the room to see to the arrangement of things, when she is suddenly called to help with an emergency case in which the thumb has been lacerated and one of its arteries cut. She opens the door, grasping the knob which two days ago had been grasped by the septic hand, finding it hard to open, turns her hand in various positions trying to unbolt it. Rushing into the dressing room, she finds the patient is bleeeding furiously. She seizes a sponge to put over the bleeding point and holds it for several minutes. The house doctor, who is in a hurry to attend a baseball game, comes up and stitches the wound without taking time to thoroughly cleanse it. He calls to the nurse to give him a needly and silk thread without delay, and, dipping her hand into a bichloride solution, she tries to thread the needle with silk. Finding it large for the needle, she rolls it several times between her thumb and index finger and finally succeeds in getting the thread through the needle's eye. It so happens that these were the fingers which came in contact with septic material on the door knob. In the afternoon of the third day both the patient on whom curettement had been done and this case have violent chills. The uterine case develops a septic endometritis, followed by peritonitis, and dies five days later. The wound of the thumb is opened and washed with antiseptic solution, put in a wet dressing, etc., the next day it being thought best to amputate the thumb. The infection gradually extends, two days later the arm is amputated at the elbow. The infection still continues and three days later the patient dies of general septicemia.

The indirect but primary cause of these three deaths is a lack of due precaution on the part of these nurses to thoroughly cleanse their hands before touching the furniture or doorknob, and if absolutely necessary, using a piece of gauze or a towel when doing so. The secondary but direct cause was brought about by the unfortunate delusion that simply dipping the hands in a solution of bichloride of mercury sterilizes them.

A gall bladder operation was to be performed in a certain hospital. A great many sponges were necessary. The nurse in charge of a number of surgical cases, some of which were purulent, was called to take charge of the sponges. Having been taught that 1:1000 bichloride solution would destroy any infection on her hands, she scrubbed them a minute or two with soap, water and brush, held them in bichloride solution another minute and thought this was sufficient, as she expected to wear rubber gloves. She used a pair of gloves which had been used before but, after testing them with water and finding they did not leak, she felt perfectly secure. It so happened that during an operation the day before the surgeon had partially pricked a hole on one of these fingers, which opening was completed by squeezing out the sponges until a very small hole existed. The operation for gall stones was a long one, the room was very hot, and every one in the operating room perspired freely. The glove fingers were partially filled with perspiration which soaked the superficial epithelium off the hands and the dirt, which was left after the slight washing, contained large numbers of septic germs, not reached by the bichloride solution, because the dirt was mixed with albuminous substances and was simply coagulated, making a protection for the germs. A considerable quantity of this perspiration, containing these septic germs, had soaked from the sweat glands and under the nails when this glove finger began to leak. This fluid leaked out among the sponges. When the operator began changing his protective sponges he used those from the basin into which the fluid from the glove finger had leaked. They were all infected, as well as every point of the peritonium touched by them. The patient died a few days later with a violent peritonitis, a victim of a false belief in the unfailing efficacy of chemical germicides, especially if still further protected by rubber gloves. We might relate many other ways by which the infection may come in these obscure cases of sepsis, but as it is the principle we wish to bring out here, we will go no further.

This paper will be followed by "Methodical Cleansing of the Hands, Patient, etc."

LESSONS FROM THE LIFE OF PASTEUR.

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(CONCLUDED.)

The next great discovery, and the one which really formed the foundation stone of his subsequent study of infectious diseases, was that fermentation, which converts cider and wine into vinegar, was not, as held by Liebig, the great German chemist, a chemical change, incident to the presence of a decomposing organic matter, but was generated solely by the presence of an actively growing fungus of microscopial dimensions, which, when gathered together en masse, forms the so-called mother. In a letter later he says, "I am pursuing as best I can these studies in fermentation, which are of great interest, connected as they are with the impenetrable mystery of Life and Death. I am hoping to mark a decisive step very soon by solving without the least confusion, the celebrated question of spontaneous generation." Both philosophy and religion have heaped up much rubbish in the path of science. So here Pasteur had to combat the belief held from time immemorial by the priesthood, naturalists, poets and philosophers, that life could arise spontaneously. That this belief was often founded upon the flimsiest evidence is shown by the grave statement of a learned man in the sixteenth century, that if some dirty linen, a few grains of wheat and a piece of cheese were placed in a receptacle, mice would spontaneously be created. Worms found in putrid meat were supposed to have originated in the same way. While some of the best known scientists had taken the ground that every living thing springs from a pre-existing individual, the question had not once and for all time been settled.

To this new task Pasteur set himself, and in a letter to his old friend, Dumas, he expresses the following prayer: "God grant that by my persevering labors, I may bring a little stone to the frail and ill-assured edifice of a knowledge of these mysteries of Life and Death where all of our intellects have so lamentably failed. As representing the scepticism concerning the outcome in this new research, his old friend, Biot, the scientist, exclaimed in protest, "You will never find your way out," to which Pasteur made the simple but confident reply, "I shall try."

No story or fable, the history of none of the world's greatest achievements, no narrative of thrilling exploits, is more fascinating that the account of his persistent work against the heaviest obstacles, his painstaking verification of observations and the tenacious pursuit of his theories, which were destined, when at last proved correct, to bring to him the homage of the scientific world, a considerable part of which at that time either openly opposed or languidly looked on in a scoffing mood. Like all great characters, opposition only stimulated his efforts. His was the spirit "Which looks upon the tempest and is never shaken."

Many experiments were instituted, a perilous journey was made into the snowy heights of the Alps, but the culminating and convincing experiment, which proved the impossibility of spontaneous generation, was the simple test tube filled with a sterile culture liquid, and so closed that dust but not air was excluded. Under these conditions no change occurred in the liquid and no manifestations of life appeared in it.

His theories had become so much discussed that the entire lay world was interested. What more dramatic culmination could have occurred than on a night in 1864, when Pasteur entered his lecture room to demonstrate his conclusions before a popular Paris audience. Besides students and professors, there was Alexander Dumas, Sr., George Sand, Princess Mathilde, interspersed among the fashionable set. But while the surroundings were dramatic, the earnest speaker was not an actor, for as stated by Rene Vallery-Radot, "The man who stood before the fashionable audience was not one of those speakers who attempt, by an insinuating exordium to gain the good graces of their hearers; it was a grave looking man, his face full of quiet energy and reflective force."

The chief question which he was there to answer was, "Can matter organize itself?" "Can living beings come into the world without having been preceded by beings similar to them?" He then detailed his work in simple language and impressively demonstrated that air, rid of its swarming myriads of germs, invisible to the unaided eye, contained no other genetic force capable of originating life *de novo*. The next problem presented to him was quickly solved. French wines, the great commercial staple of the country, were discredited in export countries on account of deterioration due to fermentation and acid changes. Pasteur quickly solved this vexed question and restored France's commercial prestige in this commodity by simply heating the wine and thus destroying all vitality in the germs.

Next he took up the study of the silk worm disease. His old friend, Dumas, instigated this investigation in 1865, when he wrote: "I attach the greatest value to seeing your attention fixed on the question which interests my poor country; the distress is beyond anything you can imagine." In reply, Pasteur seemed reluctant to take up the problem, as it was wholly new, for he replies, "Remember, if you please, that I have never even touched a silk worm." In one year France produced over 100,000,000 francs worth of silk, and so valuable was the commodity to the nation that the mulberry was called the "Tree of Gold." An insidious disease had broken out among the silk worms, and the great industry was paralyzed, and immediately all of the riches which had poured in a steady stream into the silk culture districts fell away and the country people were face to face with the direst poverty. Again the genius of Pasteur triumphed, and the silk industry, by his discovery of the cause and cure of the disease, was put upon a stable basis and again comfort and happiness took the place of distress and hunger. He likewise placed the manufacture of vinegar upon a scientific basis, so that it was possible, by always following given conditions, to produce an article of a standard quality and strength. In thus driving out the ills of poor, suffering France, he restored to the country people prosperity, and instead of sorrowful lamentations, good cheer, hope and happiness had returned to the simple folk whom he always looked upon with the deepest feeling of love.

Already he had more than achieved enough to make any man great, and was yet only forty-one years of age, when suddenly it seemed that life was to be taken from him, or that he was to drag out the remainder a hopeless paralytic. Like the great oak of deeply penetrating roots and tall, sturdy trunk, crowned by wide spreading branches, shooting upward to catch all that is possible of God's sunshine and rain, which has come out of the raging storm unscathed, and yet is suddenly riven to its heart by a bolt of lightning, so Pasteur, almost without warning, was stricken with an apoplectic stroke. Day after day his life hung in the balance. His sorrowing friends were one day cheered, the next day depressed by the bulletins from the sick room. All France was an anxious watcher, and sealed notices were daily sent to the emperor detailing his condition. Gradually a change for the better was noted; the paralyzed members began to improve, and soon Pasteur was restored to his work with only slight sequels of his stroke. During this illness the characteristics which constituted the greatness of this man were ever paramount. Always kind and considerate, calmly hopeful, his one great wish was to live and serve his country still further. When his life was despaired of, he said, "I am sorry to die; I wanted to do much more for my country." This was not a mere empty speech, for upon his survival he gloriously fulfilled his promise.

While his preceding work was great, that which followed was to be of incalculable good, not alone to France, but to all subsequent generations of mankind. Subsequent to his recovery his energies were again temporarily suspended by the declaration of war between France and Prussia. Pasteur's whole soul was stirred in behalf of his beloved France; he scornfully returned to the University of Bonn his honorary degree. He suffered the keenest mental anguish, and in almost despair he said: "I can not go on; all this hurts me. I try to put away all such memories, and also the sight of our terrible distress in which it seems that a desperate resistance is the only hope we have left. I wish that France will fight to her last man, to her last fortress." During all of this agony of doubt as to the fate of his country, Pasteur still projected and thought of new experiments. In this way he stilled the pain which he experienced as he saw France being led to the shambles. The consolation of his early youth was again expressed as follows: "Let us endeavor to distract our thoughts from human turpitudes by the disinterested search after truth."

About this time one of the greatest epochs in surgery was founded upon the germ theory of Pasteur. Lister, the celebrated English surgeon, having, he said, meditated on Pasteur's theory of germs, proclaimed himself his follower, convinced that complications and infections of wounds were caused by the access of living organisms and infectious germs, elements of trouble, often of death. Upon Pasteur's initial discoveries of the infectious nature of circulating air, Lister, in 1867, inaugurated what has since become the celebrated antiseptic method of wound treatment. The dangers of any operation before this new era were so fearful that one brilliant French surgeon said, "When an amputation seems necessary, think ten times about it, for too often when we decide upon an operation, we sign the patient's death warrant."

Nelaton, in despair, on seeing so many wounded soldiers die of blood poisoning during the seige of Paris, declared that he who should conquer purulent infections would deserve a golden statue. So dangerous were abdominal operations in women that the bold pioneer surgeons in this special work were called murderers. Purulent infection, as said by one writer, was looked upon as "an inevitable and necessary disease, an almost divinely instituted consequence of any surgical operation." The incalculable good which has come to humanity by the adoption of Lister's principles, in the three decades since his theory was first accepted and acted upon, is well nigh incomprehensible. As a result of the marvellous benefits of this applied theory, the major abdominal operations are now attended at most by only 4 to 6 per cent. mortality, whereas, in earlier days, 60 per cent. mortality was the recorded statistics of eminent surgeons. To Pasteur, Lister gave all the credit for his incentive. In a letter to Pasteur in 1874 he writes: "Allow me to take this opportunity to tender you my most cordial thanks for having by your brilliant researches demonstrated to me the truth of the germ theory of putrefaction, and thus furnished me with the principle upon which alone the antiseptic system can be carried out."

The principle of the sterilization of instruments was early expressed by Pasteur in the following statement: "If a sound were examined with a miscoscope it would be seen that the surface presents grooves where dusts are harbored, which cannot be completely removed even by the most complete cleansing. Fire entirely destroys these organic dusts. In my laboratory, where I am surrounded with dusts of all kinds, I never make use of an instrument without previously putting it through a flame."

Sedillot, a French surgeon, in the following prediction, which might have taken a century to have seen fulfilled, and yet has already been realized, says: "We shall have seen the conception and birth of a new surgery, a daughter of science and of art, which will be one of the greatest wonders of our century, and with which the names of Pasteur and Lister will remain gloriously connected." Pasteur had the supreme gratification of seeing the unbounded good coming from his work in this line, and Lister has won the right to be perpetuated with a golden statue.

While Pasteur's theories had been incorporated into working principles in surgery, as yet no substantial progress had been made in the germ theory of disease, but now a step in that direction was taken, and again it was in the interest of the country people. A peculiarly malignant disease was killing large numbers of sheep, in the ratio of twenty out of every hundred in a flock. Animals stricken with this disease almost always died in a few hours. Sheep were seen to lag behind the flock, with drooping head, shaking limbs and gasping breath, and after a brief period of agony, death supervened, often before the shepherd had had time to notice the attack. This disease was called splenic fever, on account of the enormous distension of the spleen. Men were not immune from this disease, many dying horrible deaths from its ravages. After many experiments, Pasteur arrived at the following conclusion: "Anthrax (splenic fever) is, therefore, the disease of the bacteridium, as trichinosis is the disease of the trichina, as itch is the disease of its special parasite, with this circumstance, however—that in anthrax the parasite can only be seen through a microscope and very much enlarged." In other words, here was a germ which, upon gaining access to the blood of the sheep, multiplied with incredible rapidity, filling all of the circulatory channels and quickly destroying life.

As in all of his other discoveries in this new announcement, Pasteur had ardent followers and bitter antagonists. When this gentle and kindly man was aroused by unjust or ungrounded criticism, he would rise up in his might and with the most forceful argument, convincing demonstration and telling language, overwhelm his opponent. He loved a righteous controversy. For some time he carried on a running fight with his opponents, whom he successfully vanquished, not only proving that the disastrous splenic fever was a germ disease, but that the bacillus gained entrance to the sheep's blood through abrasions or wounds made by thistles or rough food which they ate. In other words, the sheep inoculated themselves with the anthrax germs, which were abundant in the earth and upon plants in the country, where this disease was most prevalent. On giving the animals food free of thistles and other rough matter likely to produce an abrasion, the disease largely disappeared from the flocks, practically demonstrating the force of Pasteur's conclusions. Another interesting observation of Pasteur's was that the germs were brought to the surface from the graves of the dead sheep by earth worms, and that the earthy cylinders in their intestinal canal contained myriads of these organisms.

For the cure of this disease Toussaint elaborated a vaccine which would effectually cure the sheep. Thus began the first serum treatment of disease, which was a forerunner of the discovery by Behring of an antitoxin which has proved an effective cure for that dread disease, diphtheria.

Next, a worker in Pasteur's laboratory developed boils, and following his proverb, "Seek the microbe," he found that upon culture a peculiar germ grew in broth from the pus taken from the boil. Here was the special germ which plays such fatal havoc in surgical wounds. In the maternity wards of the Paris hospitals patients were dying by hundreds from childbed or puerperal fever. In one series of 347 cases, 64 mothers died. Is it any wonder that these poor women, when forced by poverty to enter these maternity wards, many times sank down upon the steps at the entrance of the hospital weeping bitterly and bidding a last farewell to their friends? In the French Academy of Medicine an eloquent member of this body was dilating at length upon the causes of this fearful mortality, when Pasteur impatiently interrupted him, "None of these things cause the epidemic; it is the nursing and medical staff who carry the microbe from an infected woman to a healthy one." The orator replied that he feared the microbe could never be found, when Pasteur walked to the board and hastily sketched a chain of these organisms, which we know as streptococci, saying: "There, that is what it is like." By the institution of aseptic and antiseptic methods, Pasteur's views again quickly triumphed, for now the maternity statistics are free from the awful results of three or four decades past.

No longer was Pasteur simply a national character, for he had now become a great world figure, and yet, while fully aware of the import of his discoveries, he was still the same modest, unassuming man. On attending the International Congress of Medicine, in London, in 1882, he was the lion of the occasion. As an evidence of his extreme modesty, on entering St. James Hall, which was crowded to overflowing, the entire audience broke into tumultuous applause. Pasteur, very much disconcerted, said to his companion, Sir James Paget, "It is no doubt the Prince of Wales arriving. I ought to have come sooner." Later, in his address, the president, upon referring to Pasteur, was interrupted by an outburst of boundless enthusiasm and admiration of the audience for this great savant. In a letter to Mme. Pasteur he unassumingly says, "I felt very proud, I felt inwardly very proud, not for myself—you know how little I care for triumph—but for my country, in seeing that I was specially distinguished among the immense concourse of foreigners, especially of Germans."

His undying hatred for the Germans was still dominant, so much so that he avoided meeting the Crown Prince of Germany, but the latter came to him and said, "M. Pasteur, allow me to introduce myself to you and to tell you that I had great pleasure in applauding you just now."

Although he was apparently at the supreme height of his career, his work was still arduously pursued. Hog cholera, the advancing of his germ theory of disease, lively skirmishes with his opponents, active energy in his laboratory, eloquent speeches to learned bodies of men, popular addresses to lay audiences, filled his life to its fullest capacity. Honors were profusely showered upon him, but one which touched his heart was the unveiling of a tablet in his honor upon the humble house of his tanner father. His tribute to his parents is a vivid picture of devotion and love, than which no more perfect example has ever been written.

With deep emotion he replied to the mayor of his little home village, "But, after protesting, gentlemen, against the brilliant testimony of an admiration which is more than I deserve, let me tell you that I am touched—moved to the bottom of my soul. Your sympathy has joined upon that memorial plate the two great things which have been the passion and the delight of my life—the love of science and the cult of home." And then, with reverential affection, he concluded, "Oh, my father, my mother, dear departed ones, who lived so humbly in this house, it is to you I owe everything. Thy enthusiasm, my brave-hearted mother, thou hast instilled it into me. If I have always associated the greatness of science with the greatness of France, it is because I was impregnated with the feelings that thou hast inspired. And, thou, dearest father, whose life was as hard as thy hard trade, thou hast shown to me what patience and protracted effort can accomplish. It is to thee that I owe perseverance in daily work. Not only hadst thou qualities which go to make a useful life, but also admiration for great men and great things. To look upwards, learn to the utmost, to seek to rise ever higher, such was thy teaching. I can see thee now, after a hard day's work, reading in the evening some story of the battles in the glorious epoch of which thou wast a witness. Whilst teaching me to read, thy care was that I should learn the greatness of France.

"Be ye blessed, my dear parents, for what ye have been, and may the homage done today to your little house be yours."

Pasteur's last and great work was the study and cure by inoculation of hydrophobia, that dread disease which kills inevitably, but with a prolonged and horrible death struggle. His gentleness and sympathy were such that it made him sick at heart to inoculate animals, and only the impelling mandates of science and love of humanity ever nerved him to the ordeal of vivisection. Even after establishing beyond doubt that inoculation of the attenuated virus of rabies would certainly prevent this disease in a bitten dog, nevertheless, it was with the most torturing doubt that he consented to try this remedy first upon a little Alsatian schoolboy who was brought to his laboratory by the boy's mother. From day to day, as the experiment progressed, and with each inoculation a stronger virus was introduced, Pasteur's anxiety and distress became pitiful. His nights were wakeful, and in the early gray hours of the morning his agony was intense on account of the torturing possibilities of the boy's becoming a victim to the inoculations. Again Pasteur triumphed and in successive cases his theories were proved correct. His hopes for a cure of hydrophobia had been realized.

His affection for children was profound, and after vainly attempting to save a dear little girl who had been brought to his laboratory too late, he burst into tears upon her death, and regretfully said to her mother, "I did so wish I could have saved your dear little girl."

To the end, although his vital forces were failing, Pasteur adhered to his motto, "Onward," and ardently watched his pupils in their work until his quiet end, September 27, 1895.

In conclusion, let us again contrast the life and the results of Napoleon's life, who has played so great a part in French history, with that of Pasteur. See how he scaled the very topmost heights of fame, but his work was all destructive and has led to no great results. Grim visaged war sat upon the throne with him. On the other hand, Pasteur's pyramid was constructed first upon a sound moral basis, and each stone that entered into its make-up was of the most enduring material. His life went out amid the deep veneration and love of his countrymen, and the theories which he first enunciated have been worked into the most far-reaching practical principles in the healing art. He stands now among the greatest of the immortals, and with time his fame will not die, but will ever grow more effulgent, and the nations of the earth will heartily join in heartfelt songs of praise for the man whose life was modelled upon the divine principles of love and truth.

RATIONAL THERAPEUTICS.*

By Wilbur N. Hunt, M. D.

WHATCOM, WASH.

A short time ago a man applied to me for treatment and, in order to aid me in getting a better understanding of his case, showed me a prescription that he had been using which read as follows:

R.—

Acetanalid	dr ii
Antipyrine	i
Tr. Gelsemium	i
Quin. Sulph.	i
Iron & Quin. Cit.	ss
Elix. Simplex	oz iv

M. S. Teaspoonful 3 times daily before meals.

The patient informed me that he had almost finished taking the second bottle and, while it seemed to relieve his headaches, it did not seem to be doing him much good in other ways. Is it any wonder that this man was suffering from a good crop of boils, with a large axillary abcess thrown in for good measure?

As the above prescription was written by one who is a stranger to me and who is not a member of this society, I may safely use it as a text for a discourse on therapeutics. It would probably serve equally well as a foundation for a discussion of the subject of diagnosis for, as nearly as I could learn, this patient, at the time of receiving the prescription, was suffering from headache due to defective elimination, the boils not having yet appeared. Hence the coal tar products were given for the relief of the headache but nothing for stimulating the secretions nor to promote elimination. It is needless to say that I advised him to set the remainder of the medicine aside for the present as I thought something different would be better suited to his condition as it then was.

With the advancement of recent years in all medical lines it would seem that the shot gun prescription, like the above, should have long since become a thing of the past, but I fear that it is still in use to a much greater extent than most of us believe. Undoubtedly the tendency of the times is toward a simpler and more direct form of prescribing, yet the fact of such great advancement in medical chemistry has in some respects added difficulties to an already bewildering field of materia medica and therapeutics. I refer especially to the large class of synthetic remedies which have been given to the profession during the past few years, and which, in many instances, are more complex in their action than in their unpronounceable chemical names.

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*Read before the Whatcom County Medical Society, Whatcom, Wash., April 13, 1903.

On the other hand chemistry has given us many new alkaloids and other active principles, simple and definite in their action, which ought to be of great assistance in developing a more rational therapy.

What, then, is the proper attitude for us to assume under all the circumstances? Evidently to use the simplest medication which will meet the indications of the case under treatment, using only such remedies as are thoroughly understood in all their effects both for good and evil. In the example cited the prescriber knew that the coal tar derivatives which he gave would relieve headache, but he apparently did not know of their detrimental effects or he would not have ordered 18 grains a day to be continued indefinitely.

It seems that the schools are not giving as much attention as they should to the newer remedies, for a graduate of '99 told me not long since that he was afraid to use the alkaloids as he did not understand their action sufficiently well. When we consider the multiplicity of remedies this is perhaps not surprising, but the study of the active principles ought to be the best foundation for a good understanding of the more complex drugs from which they are derived.

The time was when the ability to write a complex prescription of equally complex remedies was considered an index of a physician's professional standing, but that time has long since passed and, as chemistry, physiology and clinical experience give us greater and more definite knowledge of therapeutic remedies, it is to be hoped that all medical men may be brought nearer together. When we remember that drug therapeutics has been the cause of most of the dissensions of the profession in the past, whatever tends to a closer union ought to receive hearty encouragement on that ground alone. As a matter of fact we cannot expect to have the standing and influence before the community at large to which we are entitled until we are a united body.

This position of antagonism of medical men against each other is no doubt largely responsible for the lack of influence of the medical profession which now exists. No argument is needed to prove that our position in the eyes of the laity is not what it ought to be and it has been truly said that, "the undignified and often acrimonious controversies, which have frequently occurred in the past, have borne their legitimate fruit in the lack of respect with which we are regarded by a large part of the public." Opprobious epithets, reflecting on each other's knowledge and impugning their motives, have been hurled back and forth so much between medical men that the power to distinguish the true physician from the quack has been practically lost by the masses of the people.

When it shall be understood that a physician may use in the treatment of disease any medicine, or no medicine at all, as his educated judgment may dictate and still maintain a good standing in the profession, a long step will have been taken toward the position we ought to occupy before the world.

CLINICAL NOTES.

PURPURA HEMORRHAGICA DUE TO PTOMAIN POISONING.

By Geo. A. Tripp, M. D.,
Seattle, Wash.

Mr. B., age 27, family history negative. Personal history: Has had measles, mumps, chicken-pox, no venereal disease. Lungs and heart normal. Patient left Chicago about May 1st, 1903 and arrived in Seattle about May 7th. While on train had some fever and drank large quantities of ice water. On May 10th had some headache and loss of appetite. On May 15th patient was first seen at Providence Hospital, (by kindness of Dr. Horton) and presented the following symptoms: Temperature, 100 3-5; pulse 82; respiration 32; nauseated and vomited some bile; complete loss of appetite. Some occipital headache and stiffness of neck; there was marked conjunctivitis and photophobia; the tongue was coated and throat red; the head, neck and chest were covered with a scarlet blush, with a number of purpuric spots which resembled the beginning of a severe case of measles.

On May 16th temperature 100 1-5; pulse 100; respiration 28. Patient restless and had anxious expression; vomiting continued, no food being retained. The ecchymosis was more marked, the body being well covered with spots from the size of a pin head to a silver dime. Urine contained some albumin. May 17th all symptoms much exaggerated, temperature 100; pulse 140 and weak. Vomiting. Urine drawn and was like ink, containing blood and a large number of casts. The body was now completely covered with a red blush and mottled with dark ecchymotic spots which had increased in size from previous day. There was great suffering from dyspnea. Patient died suddenly at 5 p. m. and the body at this time was nearly black.

At the post mortem examination the entire abdominal contents were found injected and hemorrhagic. The kidneys were very dark and congested. There was no epistaxis and no blood in stools. The patient gave history of eating a large quantity of sardines and chow-chow on the first day of his sickness which he believed to have been the cause of his fatal illness.

NORTHWEST MEDICINE

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Published Monthly by the Washington Medical Library Association.

Editorial and Business Office - Marion Building, Seattle, Wash

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. JUNE, 1903. NO. 6

THE PRINCIPLES OF MEDICAL ETHICS.

The gratitude of the medical profession is due the American Medical Association for abolishing the antiquated Code, the source of so much bitterness and cause for acrimonious discussions during many years. It was unbearable that one should profess and subscribe to principles in which he could not honestly believe nor follow in practice. Everyone has long recognized in this ancient document one of the chief obstacles to a united and harmonious profession.

The new Principles are wisely presented and suggestive as advisory, rather than obligatory, for one's standing with his fellows. As a rule and guide for one's medical conduct many of them seem almost axiomatic, so ingrained have they become in the minds of every upright practitioner of medicine. Yet it is well thus to state, briefly and clearly, the leading principles that are generally accepted and followed in our relations to patients, brother physicians and the public. Nothing appears in this document that cannot be accepted by every physician, regardless of previous training and association. Its effect should be to unite and strengthen the profession, making it a more powerful factor than ever for scientific progress and general usefulness.

Among the many features well worthy of consideration and discussion, we select two that we believe should be impressed upon the profession and emphasized for mutual benefit and support. We quote in full the section on the local medical society. "Every physician should identify himself with the organized body of his profession as represented in the community in which he resides. The organization of local or county medical societies, where they do not exist, should be effected, so far as practicable. Such county societies, constituting as they do, the chief element of strength in the organization of the profession, should have the active support of their members, and should be made instruments for the cultivation of professional experience, for the advancement of medical knowledge, for the maintenance of ethical standards, and for the promotion in general of the interests of the profession and the welfare of the public."

The spirit of the age calls for union of allied interests. The individual can no longer make headway in opposition to such combined influences. While a mighty and powerful consolidation of the whole profession is the aim of the American Medical Association, that end can never be attained until the individuals are massed in the local societies. We should realize that our individual interests are fostered by preserving a healthy, active county society, a live unit in the great organized body of the medical profession. If this society, by the personal activity of its members, is made something more than a mere name, an impulse to individual thought and work, it may readily and anywhere become a real factor for the improvement as well as strengthening of the medical body. We trust this feature of the Principles may be frequently brought before the members of the profession.

Words of wisdom are suggested as to the personal controversies that sometimes arise among physicians. It is well known that bitterness and hostility is often caused by a difference, trifling in itself. that might be readily explained and adjusted. The article on "Differences between physicians" says: "Whenever such unfortunate cases occur and cannot be immediately adjusted, they should be referred to the arbitration of a sufficient number of impartial physicians. * * * Neither the subject matter of their differences nor the adjudication of the arbitrators should be made public." The discreditable quarrels of physicians have long been a by-word. Herein is an attempt to point a way for avoiding such and maintain the dignity of the profession. If this suggested spirit of conciliation be generally accepted and practiced, the harmony and reputation of the profession will be greatly advanced.

VACCINATION AND SMALLPOX.

During the wide-spread epidemic of smallpox of the past few years, the anti-vaccination propaganda has circulated much information and literature, tending to discredit and nullify the effects of vaccination. While the well-informed and those of discerning minds have read these statements with due allowance for their source of origin and have undoubtedly discounted their exaggerations and false conclusions, many people have been persuaded that vaccination is valueless, that many diseases are thereby innoculated into innocent children, and that its compulsory existence is a crime against mankind. That fruit has been borne from seed thus sown is witnessed by relaxed laws in certain states concerning required vaccination in school children. In some legislatures measures have actually been introduced forbidding vaccination, and have received active support. The great majority of the population, who are not classed among the fanatics and still exercise their grey matter, recognize the prevalence of these views as one of the chief causes for the present continuance of smallpox throughout the land.

Although many striking examples are at hand that will absolutely prove to any reasoning mind that vaccination is the only preventive of the spread of the disease, and that, if efficiently carried out, it will always stamp it out of existence, yet every fresh proof of these facts is not only a matter of interest, but should be brought to the attention of skeptics and disbelievers in the benefits of vaccination. One of the most striking instances recently presented of wholesale vaccination and its immediate results is that of Major Azel Ames in the May issue of the *Journal of the Association of Military Surgeons,* detailing the vaccination of the people of Porto Rico. Here was almost a virgin soil for the spread of smallpox. Dr. Ames states that in October, 1898, the disease was endemic; in December it was epidemic; in January, 1899, it had honeycombed the island; by February there were over 3,000 recent cases. Then systematic, compulsory vaccination began all over the island, and was vigorously prosecuted for four months only. By July, 860,000 vaccinations had been made in a population of about 960,000, of which 87½ per cent. were successful.

The disease had then practically disappeared. While there had been formerly an annual death rate of 621, during the past two and one-half years the mortality has been but two per annum. Furthermore, he says that, though syphilis, tuberculosis, elephantiasis and tetanus are common in Porto Rico, none of these or any other disease, human or bovine, has been imparted to any individual by the process of vaccination.

Could a more convincing example be presented than this of cause and effect? One cannot force a belief on one who refuses credence to existing facts. Thus, the anti-vaccinationist may deny the evidence herein presented, but to all others it is convincing of the value of vaccination, and is another reason for insisting on legislative action for compulsory vaccination, in order to eliminate smallpox as now existing in this country.

THE "CHRISTIAN HOSPITAL" FRAUD.

So many physicians have called our attention to the receipt of circulars and literature from this Chicago institution that it seems evident the profession of the Northwest has been generally played for suckers. It seems incredible that any man could be so lost to the sense of propriety as to squander his hard-earned coin on a piece of paper, termed a diploma, whose only object could be to tickle his vanity. For those who have nibbled at this bait and been caught, no sympathy need be wasted. Anyone foolish enough to accept such a proposition for purchase of a diploma, or to share fees with this hospital, is deserving only of ridicule and contempt. The most exasperating feature of the whole matter is the brazen effrontery of these Chicago men, with the implication that a sufficient number of the medical profession could be duped to make this a profitable venture.

Eastern journals recognize in these medical adventurers the same men who were driven from another state not long ago, while promoting a diploma mill and fraudulent hospital. It is now in order for the state of Illinois to rid herself of this disgrace. We will trust that, when ousted from the present field of activity, and again they move on, their next appearance will not be in the Northwest.

The distinguished Chicago surgeon whose name appears as the president of the institution, has disclaimed all knowledge of or connection with it. This being the case, has one no redress against such unauthorized use of his name as will bring upon him discredit and an unfavorable reputation? We hope to learn that he has obtained substantial satisfaction from these defamers. The profession can easily and quickly suppress these nefarious schemes by unitedly ignoring them. Having no material on which to feed, they will meet a speedy death.

MEDICAL PLAGIARISM.

We consider it a compliment to NORTHWEST MEDICINE when other journals recognize sufficient merit in one of our editorials to reproduce it in whole or part. But, in justice, due credit should be given to the original source of the article in question. The leading editorial in the May number of the *Western Medical Journal,* of Fort Scott, Kan., is a verbatim copy of that from our April issue, entitled "The Medical Expert—Insanity Cases," with no reference whatever to this journal. We are pleased that the editor approves of our sentiments to the extent of adopting them as his own, but we totally condemn wholesale editorial plagiarism. It seems as if there should be a sufficient number of existing medical topics to provide each journal with its own original subjects of comment.

THE STATE BOARD OF HEALTH.

As indicated in the Rules and Regulations appearing on another page, the Washington State Board of Health has inaugurated a vigorous campaign against contagious diseases throughout the state. Experience has proven that it is only by constant watchfulness and active quarantine measures that these foes of mankind can be held in check. The spread of information as to the existence of a contagious disease and co-operation of the authorities with the physicians to combat it is always effectual in accomplishing results of suppression. We bespeak a ready reception of these rules on the part of the profession and assistance in their enforcement.

NOTICE.

The Laboratory Committee of the King County Medical Society desires to announce the resignation of Dr. Stith as director of the laboratory and the appointment, in his stead, of Dr. H. G. Lazelle, whose office is in the Walker Building, Second Avenue, telephone, John 1011. Specimens for laboratory examination should be sent to this address.

RULES AND REGULATIONS OF THE WASHINGTON STATE BOARD OF HEALTH.

COUNTY BOARDS OF HEALTH.

I. County boards of health must report their officers to the secretary of the State Board of Health in January of each year, and whenever any changes occur.

II. They must adopt general rules and regulations for the control of contagious and infectious diseases and for the establishment and maintenance of quarantine, when needed, so that there will be no delay in taking proper measures to suppress a beginning epidemic. The rules, and all changes whenever made, must be sent to the state board for approval. They should give the health officer ample authority to employ sanitary police and to incur necessary indebtedness during the time the board is not in session.

III. If an epidemic of a contagious disease occur in any county, the county board of health must promptly provide an isolation hospital or pest house for such cases as cannot be isolated at home without danger to the public.

IV. The county board of health must appoint a sufficient number of sanitary officers to strictly enforce all rules of the State Board of Health, of the county board of health or of the health officer.

HEALTH OFFICERS.

I. County health officers must promptly notify the secretary of the State Board of Health of any changes that may occur in the personnel of their officers.

II. As the act of the legislature, approved March 10, 1903, gives the county board of health and the county health officer jurisdiction over the entire county, except within the limits of cities of the first class, the county health officers shall require that the health officers of cities other than the first class report all contagious and infectious diseases to them. shall also supervise the measures taken to suppress and control such diseases, and shall see that all rules of the State Board of Health and the county board of health are strictly enforced. After June 10, 1903, the date on which said act goes into effect, the State Board of Health will act with and through the county board of health and the county health officer in all matters pertaining to contagious and infectious diseases in said county, except in cities of the first class.

III. Health officers of cities of the first class shall make the same reports and be governed by the same rules as the county health officers and shall communicate directly with the secretary of the State Board of Health in all matters affecting their jurisdiction.

IV. Local health officers in cities other than the first class shall report and be responsible to the county health officers of their respective jurisdictions.

V. Monthly reports of infectious or contagious diseases, required to be reported, or that may hereafter be required to be reported, must be made before the third day of each month. If no such diseases occurred in the preceding month, such fact must be reported.

VI. Immediately upon learning of the existence of the first case of smallpox, bubonic plague, Asiatic cholera, yellow fever or typhus fever within their jurisdiction, county health officers must notify the secretary of the State Board of Health by wire, and after investigation send a written report stating fully the source of infection, the probable number of persons exposed from this or previously unknown cases, the danger of the disease spreading and what measures have been taken for its control, and thereafter they shall make weekly (on each Saturday) reports of the progress of the disease as long as any cases remain in their jurisdiction.

VII. The following diseases must be reported by the county health officer to the secretary of the State Board of Health: Asiatic cholera, yellow fever, smallpox, typhus fever, bubonic plague (the first case of the foregoing by telegraph); scarlet fever, diphtheria, membranous croup, typhoid fever, leprosy and consumption; also all cases of so-called Japanese-Cuban-Philippine-Manilla-Egyptian-Dobe or Kangaroo-itch, and *chicken pox in adults.*

VIII. Health officers must promptly quarantine each and every case of Asiatic cholera, yellow fever, typhus fever, bubonic plague, smallpox, scarlet fever, diphtheria, membranous croup and leprosy; also all cases of so-called Japanese-Cuban-Philippine, Manilla-Egyptian-Dobe or Kangaroo-itch and chicken pox in adults, and take such other measures as may be specified under the rules for each disease mentioned.

QUARANTINE.

I. Whenever the rules designate that a quarantine shall be established to prevent the spread of any disease, it is meant that the person or persons affected with such disease and their attendants and all persons who have come in contact with such person shall not be allowed to leave the premises designated as under quarantine, neither shall any person, except the attending physician, be allowed to enter and leave such premises except upon the written order of the health officer until the quarantine shall have been raised. Guard must be maintained if necessary to enforce this rule.

II. When any building, house, portion of a house or other place is quarantined because of a contagious disease, the health officer shall cause to be fastened in the most conspicuous position upon such house or building a placard or flag, upon which is printed the name of the disease, in letters at least two and one-half inches in height. This placard or flag must not be removed by any one except the health officer or his deputy, and not by him until the premises have been thoroughly disinfected.

III. When persons exposed to, but not evidently sick with, a contagious disease, are placed in quarantine, the same rules as to quarantine shall be maintained as if they were sick with the diseases to which they have been exposed.

IV. When persons confined in a quarantined house have recovered from the disease for which the quarantine is established (or when the quarantine is for exposure to a contagious disease, and the period of incubation has elapsed) they shall be discharged from quarantine on the order of the health officer, provided that before being discharged from such quarantine they have taken a thorough antiseptic bath and put on clothing free from contagion.

V. When all persons contained in a quarantined house or building are free from danger of spreading the disease, the quanantine shall be raised by order of the health officer, but not until every exposed room together with all furniture, bedding, clothing and other articles contained therein have been disinfected with formaldehyde gas. Such disinfection must be done by or under the direction of the health officer or his deputy.

VI. Physicians visiting patients in quarantine must take all possible precautions to avoid spreading the disease.

VII. Wherever disinfection is mentioned in the rules of the State Board of Health, it is meant, unless otherwise specified, that the disinfection shall be done with formaldehyde gas, using at least twelve ounces of a 40 per cent. solution, in a generator, for each 1,000 cubic feet of room space, or the equivalent if another solution is used or if a generator using solid formaline or paraformaldehyde is used, all windows, doors or other openings having been closed and the cracks sealed with strips or paper pasted over them and left so for at least six hours.

VIII. Quarantine shall not be established by one county or city against another county or city without the consent of the State Board of Health.

Contagious and Infectious Diseases.

I. In accordance with the provisions of an act, approved March 12, 1903, session laws 1903, the State Board of Health hereby declares the following diseases to be contagious or infectious and dangerous to the public health: Asiatic cholera, yellow fever, bubonic plague, smallpox, scarlet fever, diphtheria, membranous croup, typhus fever, typhoid fever, leprosy, measles, tuberculosis, chicken pox in adults, and so-called Japanese-Cuban-Philippine-Manila-Egyptian-Dobe or Kangaroo-itch, and as such must be reported by physicians within twenty-four hours, to the health officer within whose jurisdiction they occur.

II. Every physician shall immediately report to the health officer every case of acute eruptive disease, of the nature of which he is in doubt.

III. Whenever any householder shall know that any person within his household is affected with any acute disease, accompanied with an eruption of the skin, said householder shall immediately notify either the proper health officer or the family physician.

IV. All cases of Asiatic cholera, yellow fever, bubonic plague, scarlet fever, diphtheria, membranous croup, typhus fever, leprosy, smallpox, so-called Japanese-Cuban-Manila-Egyptian-Dobe or Kangaroo-itch and chicken pox in adults must be quarantined at once, and such other precautions taken as are hereafter set forth.

V. Cases of typhoid fever, tuberculosis and measles need not be quarantined, but must be reported to the health officer.

VI. ASIATIC CHOLERA, YELLOW FEVER, TYPHUS FEVER, BUBONIC PLAGUE. All cases of Asiatic cholera, yellow fever, typhus fever and bubonic plague must be strictly quarantined with a day and night guard and reported by wire to the secretary of the State Board of Health. Special instructions will be at once furnished.

VII. SCARLET FEVER, SCARLATINA, SCARLET RASH. (a) All cases of scarlet fever, scarlet rash or scarlatina must be quarantined until desquamation has absolutely ceased and all evidence of sore throat and suppuration have disappeared.

(b) All bedding, clothing, dishes and other articles used in the sick room must be disinfected before being removed. For this purpose a solution of formaline or boiling in water can be used.

(c) Upon recovery of the patient the house, or the quarantined premises, together with the contents, must be disinfected before the quarantine is raised.

(d) Every patient must be given a bath in a solution of bichloride of mercury, 1:2000, or its equivalent, before being discharged from quarantine.

VIII. DIPHTHERIA, MEMBRANOUS CROUP. (a) All cases of diphtheria or membranous croup must be quarantined until a bacterological examination shows the throat and other diseased membranes to be free from the Klebs-Loeffler bacillus, or, if such examination be not possible, the quarantine shall be maintained for six weeks, and as long thereafter as false membrane or evidence or sore throat or any discharge from eyes, ears, nose or throat remains.

(b) Sections b, c and d of rule seven shall apply to diseases mentioned under rule eight.

IX. LEPROSY. All cases of leprosy must be quarantined and at once reported to the secretary of the State Board of Health, when special instructions will be given.

X. SMALLPOX. All cases of smallpox, or diseases mentioned under rule XI. and XII., must be reported by the health officer to the secretary of the State Board of Health, in accordance with special instructions.

(a) When there is good reason to suspect the existence of smallpox in any house or place, from a report other than that of a physician, it shall be the duty of the local board of health at once to make an investigation.

(b) In the case of smallpox, it shall be the duty of the board of health receiving such report either to at once quarantine the house in which the patient resides or is found, or to remove the patient to an infectious disease hospital, disinfect the house and contents, and quarantine the inmates who are not protected against smallpox by a recent successful vaccination, or by a previous attack of the disease, for fourteen days from the completion of such disinfection.

(c) All persons unprotected against smallpox by a former attack of the disease, or by recent successful vaccination, and have known to have been exposed to the contagion of the disease, shall be quarantined for fourteen days from the time of the last exposure or be vaccinated and disinfected.

(d) Quarantine of smallpox patients shall be maintained until they have completely desquamated and until the house and its contents have been properly disinfected under the supervision of the board of health. Persons in the house with the patient, who are not protected against smallpox by a recent successful vaccination or by a former attack of the disease, shall be quarantined for fourteen days from the time disinfection of the house is completed.

(e) Persons who have recently recovered from smallpox or suspected smallpox, the nature of their malady not having been known or recognized at the time of their illness, shall be returned to their homes until their dwellings and contents, including the clothing of the inmates, have been properly disinfected under the supervision of the board of health.

(f) No child in a community in which smallpox actually exists shall be permitted to attend any public, parochial or private school without presenting satisfactory evidence of having been recently successfully vaccinated.

XI. So-called Japanese-Cuban-Philippine-Egyptian-Dobe or Kangaroo-Itch. These being only different names for mild forms of smallpox, must be treated as such.

XII. Chicken Pox in Adults. Chicken pox in adults occurs occasionally, but as this diagnosis is often made to evade quarantine and thus smallpox is spread, it is hereby required that every case be reported and quarantined the same as smallpox.

XIII. Measles. All cases of measles must be reported to the health officer, and none of the children of the family in which the disease exists shall be allowed to attend any public or private school or Sunday school. Local health officers may use their discretion regarding quarantine of measles, but all cases shall be treated alike in this respect.

XIV. TUBERCULOSIS. All cases of tuberculosis must be reported to the health officer and by him to the secretary of the State Hoard of Health, who will furnish to local health officers and physicians circulars of information for gratuitons distribution.

XVI. TYPHOID FEVER. (a) All cases of typhoid fever must be reported to the health officer, who must give directions for proper disinfection.

(b) All excreta from the patient must be efficiently disinfected with a solution of formaline, bichloride of mercury, quick lime, or their equivalent. All bedding, dishes and other infected articles must be thoroughly disinfected with a solution of formaline or by boiling.

(c) The course of infection must be sought for by the health officer and attending physician in all cases, and when found, measures must be taken to prevent any further infection.

(d) All doubtful cases should be subjected to the Widal reaction. If dried specimens of blood properly labeled are sent to the secretary of the State Board of Health, reports of the results of the Widal reaction will be made promptly.

PENALTY.

An act of the legislature, approved March 10, 1903, fixed the penalty for violation of any of the preceding rules at $25 to $100, or imprisonment in the county jail for ninety days, or both; and for refusal or neglect of any county officer, health officer or physician to enforce any of the preceding rules, the penalty so fixed is from $50 to $100, or imprisonment in the county jail for ninety days, or both.

Adopted by the State Board of Health May 30, 1903.

EMERY E. HEG, Secretary.
Seattle, Wash.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of May 4, 1903, President Sweeney being in the chair. Thirty-six members and visitors were present.

Drs. E. C. Neville and L. W. Clark were elected to membership. The name of Dr. W. C. Hastings was proposed and referred to the committee on admission.

The final report of the committee on laboratory was presented. In view of the failure to secure the previously recommended guarantee of funds, the plan was proposed to accept the gift, appoint a director whose income would be derived from fees, the excess above a fixed amount going to the treasury of the society. Sufficient monthly subscriptions had been made to cover the maintenance of the laboratory. Dr. R. M. Stith was to be appointed general director, who will have immediate charge of the laboratory, under the supervision of a laboratory committee of three members of the society, to be appointed annually by the president. The official title will be "The Pathological Laboratory of the King County Medical Society." The president stated that, until he should announce the above committee at the next meeting of the society, he would place the laboratory in charge of the committee on program and scientific work.

Dr. Smith presented a proposed amendment to the by-laws, which will be acted on at the next meeting, to the effect that the membership of the society shall include a list of honorary members, who shall be exempt from payment of dues and whose membership in this society shall not carry membership in the state association.

The resolution was passed, introduced by Dr. Eagleson, instructing the secretary to present to the societies of Pierce, Snohomish, Skagit and Whatcom counties a copy of the program prepared for the meetings of this society for the ensuing four months, with a cordial invitation to the members to attend the meetings of this society, individually or collectively.

CLINICAL CASES.

Dr. Thomson presented a man, 42 years of age, a woolen merchant, who had suffered for five years with Lupus Erythematosus. At times he has been treated by leading dermatologists in all the large Eastern cities, New Orleans and London. All imaginable forms of treatment have been tried, local and constitutional. Under each new treatment he has improved for a time, and soon relapsed. For nearly a year, at one time, he made daily applications of absolute alcohol, thus obtaining much relief.

The eruption is confined to the face. It has always been present about the ears and on the nose, disappearing for a time from other parts. It has never been painful, has been scaly at time. Now it is as profuse as it has ever been, being distributed quite evenly over the face. Dr. Thomson used the X-ray for about a year, at long and short intervals, long and short exposures. Also had given mercury and the iodides. As before, it improved for a time, only to soon return to former condition. In reply to questions, it was stated that no effort had been made to obtain the tubercle bacillus from the eruption, and that the man was not alcoholic.

Dr. Miles presented a woman of about fifty years, with HYPERTROPHY OF THE LIVER. He stated the liver extended about three inches below the ribs; there was jaundice, and recently edema of the legs. He asked the members to examine the patient and offer suggestions as to an accurate diagnosis.

PATHOLOGICAL SPECIMENS.

Dr. Ford exhibited an enormous OSTEO-SARCOMA, comprising the whole femur, obtained from a hip joint amputation. He related the history of the case.

Dr. Read exhibited the specimens obtained from an operation for EXTRA-UTERINE PREGNANCY, consisting of the fetus, sack and part of a Fallopian tube. He recited the following history of the case:

Mrs. B., age 26 years, native of Missouri until two months ago. Has been married nine years; had dysentery when 12 years old, typhoid fever at 18, and pneumonia five years ago. Began to menstruate at 13 years—always regular. No history of lues or tripper. History of a miscarriage seven years ago, with much fever and inflammation. Has been regular in her menstruation since, missed no period until present acute illness.

About six weeks ago, while on her way here, she was attacked by violent pains in the abdomen, like colic or cramps. Was very faint and weak. Was taken to a hospital upon her arrival, and had another attack, with discharge of blood from the vagina. A physician made a diagnosis of gall stone colic and gave an emetic. Had other attacks with fainting spells. Two weeks ago she was removed to the Seattle General Hospital and placed under the care of Dr. Ostrom, who at once suggested extra-uterine pregnancy. I examined her April 29th, with Dr. Ostrom, finding her very anaemic, but otherwise in a fair physical condition, pulse 90 to 100, temperature 100. Temperature had ranged from normal to 103 during Dr. Ostrom's attendance, but no evidence of any sepsis. Bi-manual examination showed a large irregular mass in the cul-de-sac and toward the left side. Uterus was crowded forward with fundus under the pubic arch. She had never missed a mentsrual period and had not suspected pregnancy.

Diagnosis: Extra-uterine pregnancy; tubal, with rupture. Usual preparation was ordered for a laparotomy to be done May 1st, but on the evening of April 30th she had severe attack of pain with fainting, and small rapid pulse. Stimulant was given and operation advised at once.

Operation: 10 P. M. at Seattle General Hospital, Dr. Ostrom assisting. Vaginal incision into the cul-de-sac revealed blood clots and fresh blood. The vagina was immediately packed and abdomen opened. The pelvis was full of debris, consisting of blood clots, fetus, and sack with placenta attached; fetus measured 11 c. m. long; sack composed of walls of left tube about 4 c. m. from uterus; was ruptured and entirely torn away from the remainder of the tube. The debris, with remains of tube, ovary and sack, was removed. The right tube was attached by old and firm adhesions to the broad ligament and ovary. It was carefully separated from the ovary and broad ligament and was left with the ovary in a very promising condition. Gauze drain was inserted in the vagina; the abdomen was closed in four layers. The patient received on the table 1000 c.c. of normal salt under the skin of the breasts and 500 c.c. of of salt solution, with 60 c.c. of brandy by rectum, after being put in bed. At this date, May 4, she is convalescing. The gauze drain was removed in forty-eight hours.

Dr. Bailey related a case that came under his observation some time ago, in which the patient had had a child five years previously. She had severe pain below the site of the appendix and passed a membrane from the uterus, which he did not see. She consulted another physician who made a diagnosis and operated for extra-uterine pregnancy. He thought the severe pain was a most important point and should have led him to suspect the true nature of the trouble.

In answer to the question as to why he had made a vaginal incision, Dr. Read stated that the condition had existed for six weeks and he feared the contents of the sac might have become infected, in which case the abdominal route might have been inadvisable.

Dr. Janson related a case he had about six months ago where the woman was only six months pregnant. It was a snap diagnosis but proved correct. He found an unruptured tubal pregnancy which yielded to a very simple operation.

Dr. Heg emphasized the necessity of operation as soon as diagnosis was made. He mentioned a case that he attended several years ago,, where the fetus was alive. Its removal was attended by frightful hemorrhage and the patient died.

Dr. Lyons mentioned an article appearing in a recent journal in which the writer has asked the views of a large number of the leading operators of this country as to the propriety of operation before rupture and the great majority advised waiting till after rupture with the hope of obtaining a viable child.

Dr. Eagleson stated that a few years ago he saw Dr. Howard Kelly operate on a case in which, by abdominal incision, he found a large hematoma in the pelvis. He closed the incision and punctured thorugh the vagina, evacuating all the contents and packing the cavity. Here the sac was shut off from the peritoneal cavity.

The first paper of the evening was by Dr. Alfred Raymond, entitled SEPTIC SYNOVITIS.—(To be published later.)

This was followed by Dr. G. W. Hawley's paper on RENAL INSUFFICIENCY.—(To be published later.)

The discussion of both papers was deferred till the next meeting of the society when, it was announced, that on Dr. Raymond's paper would be led by Drs. Eagleson and Raymond, on Dr. Hawley's by Drs. Heussy and Falk.

The second semi-monthly meeting of the King County Medical Society was held at the Chamber of Commerce on the evening of May

18, 1903, President Sweeney being in the chair. Twenty-three members and four visitors were in attendance.

The amendment to the by-laws was adopted, proposed by Dr. Smith at the last meeting, establishing a list of Honorary Members.

The president announced the following members as the permanent Committee on the Laboratory: Drs. Winslow, Heg and Sharples.

Dr. Peterkin stated that, in the recent case on trial in the superior court where he had been summoned as an ordinary witness, he had declined to answer certain questions on the ground that they comprised expert testimony, unless he were assured the fee of an expert witness. Judge Bell sustained him in this position. He felt that a precedent was thus established which should be known to the profession.

PATHOLOGICAL SPECIMENS.

Dr. Raymond presented the fragments of two Enlarged Prostates which he had removed through a suprapubic incision, according to Frayer's operation. After calling attention to the anatomy of the prostate gland, he said that the enlarged prostate was due either to an increase of the glandular structure or was of a fibroid character. The former is easily shelled out while the latter is very difficult of removal.

One of his cases was of the first class. The result was good and the patient was comfortable till his death three months later from myocarditis. In the second patient the result was fair. While previously he could empty his bladder only with great difficulty, by the use of a metal catheter, now he can do so easily with a soft instrument. Both patients were old men, in poor general condition, long sufferers from the bladder conditions.

Dr. Peterkin spoke favorably of the operation of fixing the bladder to the abdominal wall, thus facilitating its evacuation by gravity.

Dr. Raymond did not favor such a procedure since the rational treatment is to remove the offending lobes of the gland that offer mechanical obstruction to urinataion.

Dr. Tripp exhibited a bottle of black urine, the color due to the presence of blood, obtained from a patient who died from Pupura Hemorrhagica, the result of ptomain poisoning from eating sardines. (See page 321.)

Dr. Randall had supposed that these cases were very rare. About a year ago he had seen such a one in consultation. It was a young man of twenty-one years who had been brought to the city from the mountains where he had been camping. He presented hemorrhagic spots all over the body. His death occurred in a few hours after coming to the city.

Dr. Lyons mentioned a patient whom he had treated with quinine, in whom a purpuric eruption appeared in a few hours whenever he administered a certain amount of the drug. In a short time it disappeared but returned with a renewal of the treatment.

Dr. Miles saw a number of cases of the disease in Alaska, in connection with the scurvy, where canned food had been largely eaten. He thought they might have been the result of ptomain poisoning as in this case.

Dr. Tripp remarked that his patient had spent much time in Alaska but had recently been a year in the East.

Dr. Lewis had seen a number of cases of scurvy, associated with hematuria, where the diagnosis had been made of purpura hemorrhagica. The two conditions are not necessarily connected with each other.

The discussion of Dr. Raymond's of the previous meeting was passed, as the men appointed to open the discussion were absent.

In discussing Dr. Hawley's paper, Dr. Falk said he believed the writer placed too much value on cryoscopy as a test of renal insufficiency, and in this is not sustained by many prominent observers. Cryoscopy, or the determination of the freezing point of a solution, was elaborated and introduced by Von Koranyi and Dieser ten years ago. It is dependent upon certain physio-chemical laws, one of which is that the freezing point of a solution varies as the number of molecules dissolved in a constant quantity of the solution. There is an exception to this law on account of the breaking up of the molecules into their constituent ions, the latter acting as independent molecules and raising the freezing point. Von Koranyi's theory, serving as a basis of cryoscopy, that a molecule exchange goes on in the tubules, between the molecules of chlorides and excretory substances, is totally repudiated by Waldvogel who also states that the ratio between the freezing points of urine and water, containing the same amounts of chlorides, is not at all constant in nephritis. De Grasia remarks that the freezing point figures of urine of healthy individuals show kidney lesions. Cryoscopy is still in the experimental stage and cannot replace, but only supplement, the usual urinary tests.

The doctor commented upon and described the methylene-blue test as an indication of sufficiency. He also approved of the phloridzin test as being very delicate. After its injection sugar should appear in the urine in half an hour if there is normal sufficiency of renal function.

Dr. Holmes read the first paper of the evening, on PROGRESSIVE PERNICIOUS ANEMIA. (See page 291). The paper was illustrated by photographs and lantern slides from the blood under consideration.

Dr. Read complimented the essayist on the completeness of his description of the disease and the case treated. He said we need more of this kind of reports for instruction. There are several diseases classed under this heading that are not strictly pernicious anemia. The case reported is a type of the primary disease. It is essential, in a given case, to thoroughly examine all the organs to exclude other diseases. There is much variance among the authorities as to the etiology of the disease. Probably the best reports of cases have come from Johns Hopkins Hospital. McKay says that these patients do not lose flesh as a rule. About 20 per cent of them do so, however. He thought too many cases were reported cured that afterwards relapse. No class of cases respond so poorly to treatment. He had treated two cases of this character, one of whom died in sixty days, after a relapse.

He called attention to the very large red cells in the slide exhibition, saying that no patient restored to good health and feeling well could have such. He had heard Osler say that he doubted whether a typical case of the Addisonian type ever entirely recovered. Yet he had had one that seemed to have gotten well. McKay had seven or eight cases with over 4,000,000 red cells who relapsed and died. It is not uncommon to see the count drop from this figure to 2,000,000 in two weeks. The treatment described by Dr. Holmes is the only one of value but he did not believe iron has the slightest benefit. Fresh air and nourishing diet are essential.

Dr. Tripp reported a case of Dr. Horton's, a prospector sixty-four years, who failed to improve on a special diet. Finally he asked for his old diet of bacon and beans of the mountains, on which he seemed to improve. He returned to the mountains and appeared to do well for a time but one morning he was found dead in his cabin. While under treatment he took seventy-five minims of Fowler's solution daily without bad result.

Dr. Lyons related a case similar to Dr. Holmes' in all respects, who has taken arsenic and red bone marrow for nearly six months. He has improved steadily and resumed his work as a shoemaker. But he still takes his arsenic; for five months he has taken fifteen minims of Fowler's solution daily.

Dr. Peterkin read a paper on PANACEAS IN GONORRHEA. (To be published later.)

Dr. Owens thought the essayist would tell how to cure gonorrhea but he simply stated the means of diagnosis. He used the irrigation treatment exclusively, applying it twice daily.

Dr. Hoffman said this is a local disease and that, if the patient is put to bed for several weeks, given plenty of water he should do well. He mentioned a patient who came to him after being in the hands of different men in the East. He treated him for about two years with no improvement. He went to others and, when he last knew of him, he had been under treatment for four years, still suffering from the disease.

Rr. Raymond believed it to be a constitutional disease and should be so treated. He had seen many men in a serious condition from early sounding and injections. He referred to the prolonged period of possible infection, saying that the gonococcus has been found twenty-seven years after the original infection. As a rule he gives little but plenty of water for three weeks.

Dr. Hawley thought the syringe an improper means of treatment. One can never tell when a case is cured. It is claimed that, if seen within twenty-four hours from time of infection, the patient can be cured with a strong solution of nitrate of silver. But one can scarcely ever see the patient so soon.

Dr. Holmes believed much harm to be done by the syringe. The specialists make so many statements he scarcely knows what to believe. He thinks it a constitutional disease. He thought many urethal discharges were treated as gonorrheal that are not such.

Dr. Miles believed it a local disease. Simply because you find the gonococcus in the blood is no proof that it is constitutional. He did not believe the irrigation treatment to be of value. He had used it on one patient for two years with no cure.

In closing Dr. Peterkin said there is no sure cure for the disease. It is constitutional. If put to bed and given an abundance of water the patient will do well. Nothing brings on a relapse so soon as beer. He believed the statements of the specialists to be reliable.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in Odd Fellows' Hall, May 11, 1903, President Holt being in the chair. The minutes of the last meeting were read and approved. After the usual routine business, the program of the evening was rendered. The first paper was presented by Dr. J. C. Gosnell, on "The Necessity of the Early Removal of the Products of Conception Following Abortion." The doctor said every community contains its quota of women who were adepts at giving advice as to how to rid the uterus of its contents. This pernicious practice brought many septic cases to the doctor. The tampon was not always a sufficient stimulus to cause expulsion of the uterine contents. Early and thorough curettment was the necessary procedure when sepsis had begun. Abortions frequently marked the beginning of chronic trouble.

Discussion was opened by Dr. Compton, who thought this class of cases often disagreeable to handle because they usually came to us infected. It was not always easy to decide just when to curette, but when necessary, it should be done well. The doctor had never found his index finger long enough to reach the fundus of the uterus, and pronounced this method unsatisfactory unless the hand could be partially inserted. He had found most trouble with adherent membranes.

Discussion followed by Drs. Murphy, Holt and others.

The second paper of the evening was read by Dr. L. R. Markley, entitled "A Burlesque on Proprietary Medicines." The doctor detailed in a humorous manner the existing evils of the ever-increasing supply of proprietary drugs. We were rapidly becoming dispensers instead of prescribers. Physicians were easily persuaded in giving clinical experiences, which were published and used for commercial and advertising purposes. These opinions were at best individual, and often misleading. The present medical journals were manuals of therapeutics, in which a specific for every known ailment was readily found. The doctor condemned the practice of placing "clinical briefs" along with reading matter. Discussion by Drs. Beggs, Compton, Holt, Gosnell and others.

The meeting adjourned to meet the second Monday in June.

RECENT PROGRESS IN MEDICINE AND SURGERY

INTERNAL MEDICINE.

Edited by

C. W. Sharples, M. D., Seattle.

H. M. Read., M. D. Seattle

Treatment of Trifacial Neuralgia. (By E. Zimmeru, M. D., Presse Medicale, reviewed in Am. Medicine May 30, 1903), Dr. Zimmeru says that in rebellious cases, where the neuralgia does not subside under usual treatment, including opium, that he uses a course of electrical treatment, to be continued three months. He does not advise surgical treatment unless this proves of no avail, and only proposes gasserectomy as a last resort, or when suicide is threatened. He applies the electricity to the affected side of the face by a cotton mask, moulded to the side of face and held in position by bandage or rubber band, thus relieving the patient of any fatigue. Through this a continuous current of 3 to 12 milliamperes is passed for an hour or more; the negative electrode is applied to the back of the neck. The seance is repeated every day, preferably at the same hour. A slight improvement may take place at end of first week, but as a rule it will be a month before the patient realizes he is getting better. The pain may be increased by the first treatments. The great benefit is apparent after three months. After this time treatments can be suspended but the patient should have daily treatments for a week out of each month until the pain becomes insignificant. When the neuralgia recurs after such a course, it is not nearly so severe as before.

In an extensive experience in the Charcot clinic, Zimmeru has only seen two cases of severe trifacial neuralgia which resisted this course of treatment. Read.

Treatment of Arteriosclerosis with an Organic Serum. (By Trunecek, Klin. Therapeut. Wochenschrift, Vienna, Feb. 15, 1902, and Journ. Am. Med. Assn., May 23, 1903.)

Trunecek (the author of the serum) states that the direct indications for the use of the serum are permanent high pulse tension (without nephritis), dyspnea, cyanosis, angina pectoris, symptoms of arteriosclerosis of the brain and chronic alcoholic intoxication. Beside these conditions, a favorable effect may be looked for when, in addition to the usual subjective symptoms of arteriosclerosis, the urine is very acid or contains a large amount of urates or calcium oxalate. Drinks and exercises which tax the heart should be avoided. Give food which will promote oxidation and alkalinity, and to be taken in small amounts at a time.

The serum reduces the arterial tension, and with this reduction the subjective symptoms, the sounds in the ears, the vertigo, or polyuria all subside. It has proven to be of great value in the dyspnea of arteriosclerosis, even when the symptoms were not relieved by sedatives. In severe cases the injections may have to be repeated every third day. The benefit is not always constant in every case of angina pectoris; some cases are obstinate while others are cured by fifteen or twenty injections, given every four or five days. In one case of aneurism of the right subclavian, with paresis due to compression of the brachial plexus, the dyspnea, which always occurred on the smallest exertion, was cured and the paresis much improved; this patient was very well for fifteen months, when the affected arm became seat of great pain which was cured after 150 c. c. of serum had been injected.

In various paretic conditions, especially those after apoplexy, even after lasting for months and years, striking and permanent improvement has come from eight or ten injections of from three to five c. c. at each injection, every three to five days, and by the time 100 to 150 c. c. have been used the patient is usually completely cured. It is effective in chronic alcoholism without gross lesions of kidneys or liver. In the cachexia of arteriosclerosis appetite and sleep return and the cyanosis is usually entirely banished by injection of 10 c. c. of the serum. The formula of the serum as given by the Journ. Am. Med. Assn., Vol. 38, page 484, is as follows: Sodium sulphate 44 cg.; sodium chloride 4.92 cg.; sodium phosphate 15 cg.; sodium carbonate 21 cg.; potassium sulphate 40 cg.; aqua distil. to make 100 gm. The amount injected is progressively increased from one to five c. c. and the injection repeated every second, fourth or seventh day.

Trunecek prefers the fore arm but Levi injects into the buttock; he also alternates rectal and subcuteneous injections, ten of each in some cases. He states that rectal injections of 35 c. c. causes no disturbance. Levi says that he is convinced that the concentrated serum of Trunecek has a multiple action. He has demonstrated that it not only lowers the blood pressure, but modifies the composition of the blood to a certain extent, this last feature serving to explain its beneficial action in chronic rheumatism, hysteria and local congestions. Levi relates a number of cases in which Trunecek's serum proved very effective in curing retention in incipient prostatitis, hysteric sweats, and pseudo-rheumatic pains. It is applicable to all forms of arteriosclerosis and its efficacy is more pronounced the earlier it is used. Established lesions are no contra indication for its use, but its action is less evident. READ.

DIETETICS. (By Robert Hutchinson, M. D., The London Lancet, April 25, 1903.)

Hutchinson defines two conditions of a proper diet. (1) The food must supply sufficient energy to meet the daily outgo in form of heat and work. (2) That it has in it enough proteid to replace the daily destruction of body tissue which always takes place. Between 2500 and 3000 calorics will be required. The average person living in town will require 3000, and must be supplied in part by proteid. Whether this is obtained from carbohydrates or fat depends upon the digestion of the person and to some extent upon his purse, as fats are more expensive than carbohydrates. The exact amount of proteid required is not known, the 120 grams recommended by Voit being more than required in most cases, but the minimum is not known. Over eating is responsible for much disease. Any food giving the greatest bulk with the least nourishment would be a godsend to many over-fed persons. Too much porteid in food is responsible for much of the kidney disease, and uric acid troubles. One principle should be always remembered, the dependence of one organ upon another. We can not reduce the diet to treat a diseased stomach or kidney at the expense of the general nutrition. Abrupt changes in diet are to be avoided.

Hutchinson divides the diseases, in which dietics are a valuable aid to cure, into three classes: (1) Diseases of the digestive organs; (2) diseases of metabolism, fever, obesity, malnutrition, diabetes and gout; and (3) diseases of excretory organs especially the kidneys. Regarding dyspepsia, he says that the mechanical composition of food is of more importance than the chemical. The meals of a dyspeptic should be small and contain no insoluable ingredients. In most cases of functional disorders a little wholesome neglect of the stomach is good. Overeating may be a serious evil. The mechanical composition of the food should be thought of in bowel troubles. In diarrhea a diet should be prescribed which contains the least residue, and in constipation the opposite of this.

He thinks that in fevers we have gone too far in the reaction from the starvation methods. In all forms of fever the carbohydrates should be small and contain no insoluble ingredients. In most cases of the diet in obesity. The proteids are not so likely to do harm as carbohydrates and fats. Restriction of drink with the meals prevents over eating. Alcoholic liquors are likely to do harm. He believes, in common with others, that in acute nephritis, and especially when blood is being passed, that an exclusive milk diet gives best results but in chronic cases there are more complications; we should keep up a vigorous heart; meats should not be avoided, but any food which contains only the extracts of meats without its albuminous elements should be avoided. He would not hesitate to restrict fluids and prescribe a dry diet in cases of dropsy. READ.

GENITO-URINARY DISEASES.

Edited by

G. S. PETERKIN, M. D., Seattle.
G. W. HAWLEY, M. D., Seattle.

TREATMENT OF CHRONIC URETHRITIS. (By M. Le Dr. B. Motz, Annales Des Maladies des Organs Genito-Urinaires, Paris.)

This article is of special interest, as the method of treatment advocated is based upon the study of the anatomy of the normal urethra and the pathological changes that occur in it, as the result of chronic urethritis. It is accompanied by twelve cuts of microscopical sections, (normal and pathological) taken from specimens in the laboratory of M. Le Professor Guyon. The concise and logical composition of the article is such that an excerpt, especially with the omission of the cuts previously mentioned, can only give a slight comprehension of the real value of this contribution to genito-urinary literature.

The author, first speaking of the difficulty of curing this disease and the pessimistic view held by many physicians, and that the existence of many easily cured cases is one of the causes that retards the adoption of the tedious and detailed methods often essential to the cure of the more difficult ones, says that, in order to draw just conclusions as to the value of results obtained in any method of treatment, it is necessary to have an experience which gives personal observation in a number of cases followed out completely and for a sufficient length of time, without any preconceived idea of the principal methods employed by urologists; that the criterion which should be followed out in judging the relative values of different methods of treatment, should be based upon scientific knowledge and that this scientific knowledge is the knowledge of the pathologic anatomy of chronic urethritis.

In the body of the article, the author occupies himself chiefly with the lesions of the anterior urethra. He describes the normal urethral mucous membrane and the character of the lining epithelium, and shows the gradual change that takes place in the cells themselves, first in the character of their protoplasm and the shape and then in the number and character of layers of lining epithelium, showing by cuts the progressive pathological changes that occur from the normal layer of cylindrical cells with clear protoplasm as a lining membrane to several layers, the uppermost flat and keratinized with a single layer of deformed cylindrical cells underneath; in fact, that the lining layer of epithelial cells of the urethra has changed into a lining absolutely analagous with the cells of the skin. He states that this pathologic transformation varies in degree and extent in different cases and in different parts of the same urethra. In some cases, at certain points of the urethra, the inflammatory infiltration of the mucous membranes and submucosa may be still covered by the lining epithelium relatively well preserved. However, for the most part, the chronic infiltrations are protected by a thick covering (just mentioned) very difficult to permeate by chemical substances. It is this that we find is the true cause of the extreme difficulty in disinfecting these superficial infiltrations which can persist in the urethra sometimes for twenty or thirty years.

After stating the above he draws the following conclusion: One will readily admit that instillations, the injections or astringent lavages can influence very favorably the infiltrations that are covered with cylindrical epithelium, cylindrical proliferatory cells, or cylindrical cells with one or two layers of flat epithelium upon their surface. But, on the contrary, it is absolutely impossible to admit that one brief application of a medicated substance, even the strongest, may be capable of destroying the foci protected by a thick layer of horny epithelium. That the conclusion is not an hypothesis, but is a fact which is only too often demonstrated by the therapeutic dermatologist in the treatment of different varieties of dermatitis. As a simile he makes a chronic urethritis with horny epithelium and a chronic dermatitis two comparable lesions, and then recalls the fact that a dermatologist never hopes to cure these lesions by an antiseptic wash applied momentarily or by a rapid application of nitrate of silver, repeated from time to time. To overcome these infiltrations which are found under the cornuated epithelium, he maintains that a prolonged application of some antiseptic substance is absolutely necessary.

From the foregoing he concludes that the treatment of this condition by medicated bougies, as advocated by Unna, or by pomades, advocated by Caspar and Janet, are on a logical basis, but objects to their use on the ground that they are not the best means to the end. He advocates the following method in superficial anterior urethritis without gonococci. The urethra is filled with 4 or 5 cc. of an antiseptic solution; the fossa navicularis is compressed by two fingers of the left hand; a thick band of cotton is then passed around the gland and maintained there by a cotton thread. The patient then carefully guards the liquid introduced into his urethral canal for two or three hours. He recommends three solutions of the same substance, varying in strength, to be used according to the sensibility of the urethra:

	Weak sol.	Medium sol.	Strong sol.
Hermophenyl	0.50 gm	0.75 gm	1. gm
Protargol	0.50 gm	0.75 gm	1. gm
Glycerine	.30 gm	.30 gm	.30 gm
Chlor. of cocaine	1. gm	1. gm	1. gm
Distilled water	1 litre	1 litre	1 litre

If one does not possess Hermophenyl (mercury phenol disulphonate of soda) it can be replaced by the oxcyanide of mercury. The cocaine is useful in this formula to prevent the disagreeable sensation that sometimes frightens the patients on the first urination; the glycerine to soften the epithelium; the protargol to provoke a mild diapedesis in traversing the epithelium, which enlarges the intercellular spaces and thus facilitates the penetration of the antiseptic, here, hermophenyl or oxcyanide of mercury. He maintains it is necessary to study the sensibilities of the urethra in each patient in order to ascertain the solution that can be best borne. From his experience he recommends that one should commence with a weak solution first, and then gives the indications that may assist one in judging as to the sensibility of the urethra in each case.

From this form of urethritis, chronic superficial urethritis without gonococci, he proceeds to discuss briefly the treatment of other forms which he classifies under the following headings:

Profound anterior urethritis without gonococci.
Chronic anterior urethritis with gonococci.
Posterior urethritis without gonococci.
Posterior urethritis with gonococci.

Profound anterior urethritis without gonococci differs from the superficial in that the inflammatory infiltration has extended deeply into the spongy and vascular tissues, in the urethral glands, etc. And he shows specimens demonstrating that the urethral glands are frequently situated one centimeter distant from the center of the urethra and thus demonstrating another cause that makes chronic urethritis difficult to cure. Because of this condition he advocates massage of the urethra after insertion of a Benique sound, the use of the Kollman or Oberlander dilator. He discusses the indications for the use of each and their relative value and the technic to be observed. In chronic anterior urethritis with gonococci he insists that the condition of the prostate must be ascertained; advocates a long series of large injections of permanganate of potassium 1:2000 at the commencement of the treatment, to be modified or replaced by oxcyanide of mercury; massage of the urethra and dilation as indicated. In cases where the cause of the chronicity is not due to the epithelial changes, but severe glandular infection, treatment with peroxide, dilation and massage of the prostate are indicated. In the treatment of chronic urethritis with and without gonococci, nothing especially new is given. He still apparently retains a preference for the nitrate of silver over the newer silver salts, and apparently believes that permanganate of potassium is especially useful in chronic infiltration of the urethra. He devotes two full pages to methods of examining cases, uses of the urethroscope, and terminates the article with the following resume.

Urethritis without Gonococci.—Anterior superficial urethritis: In the beginning, instillation, injection, astringent lavages. If at the end of several days the secretion is not arrested, inter-urethral treatment, retained from one to three hours; at first every day, then every two or three days. The inter-urethral injections should always be followed by a grand lavage of oxcyanide of mercury 1:2000.

Urethritis total superficial: Treatment same as in the preceding case with some instillation of nitrate of silver 1 to 2 per cent in the posterior urethra.

Urethritis anterior profound: Lavage of both anterior and posterior urethra with oxcyanide of mercury 1:2000. The bladder being filled with this solution, dilation with a large Benique sound which remains ten minutes in the canal. Massage of the inflamed area on the Benique sound. Evacuation of the bladder. Inter-urethral treatments retained three hours, every two or three days.

Urethritis total, profound: One combines the treatment of the preceding with some instillation of nitrate of silver in the posterior urethra. The massage of the prostatic region and the suppository 0.10 gm.—0.50 gm. of mercurial ointment to each suppository.

Posterior urethritis alone: This is rarely observed; the treatment indicated is the treatment of the whole urethra, large lavages of oxcyanide of mercury and instillation of nitrate of silver in the superficial. The same with massage of the prostatic region and suppositories in the severe lesions.

Urethritis Chronic with Gonococci.—Anterior urethritis: One commences with large lavages of permanganate of potassium 1:2000. In case of stricture of the urethra one replaces, every two or three days, the solution of potassium permanganate by that of oxcyanide of mercury, which is left in the bladder, the urethra dilated and a massage on the Benique. If the urethra is not keratinized, give every day an inter-urethral treatment (three hours) with peroxide. If this does not give satisfactory results, it is necessary to proceed with the evacuation of the glandular canals by massage of the urethra upon a Benique.

Urethritis total: To the preceding treatment one adds massage of the prostatic region and the suppositories. PETERKIN.

THE SURGERY OF THE LOWER URETER. (By Hugh H. Young, M. D., Annals of Surgery, May, 1903.)

Dr. Young introduces his article by a very careful and unique description of the pelvic ureter which he has divided into:

"The iliac portion, where it crosses the iliac vessels.

"The parasacral, where it lies in front of the sacrum.

"The paraischial, where it is adjacent to the ischium.

"The juxtavesical, that segment just above the bladder.

"The intramural, within the musculosa of the bladder.

"The intravesical, just above its orifice and covered by mucosa."

The trigone of the bladder is considered as an expansion of the muscular fibres of the ureters and is separated from the bladder muscle beneath by a layer of fibrous tissue. The muscular fibres of the ureter spread out in a fan-shape manner, running forward to the vesical sphincter and transversely between the ureteral openings, forming the interureteral muscle (Mercier's bar). There exists no definite ureteral sphincter, the trigonal muscle serving such purpose, as it is impossible to cause a reflex of fluid from the bladder by even the greatest intravesical distinction. The mechanism of evacuation is described as follows: "The orifice is first opened, drawn back and outward. The urine then begins to flow in a swift stream. The muscle of the trigone then contracts, and the orifice of the ureter is then drawn forcibly downward and closed as the last urine escapes." Attention is drawn to the fact, as the author had previously shown, that the course of the two ureters within the pelvis may be represented with fair accuracy by a hexagon having sides five centimeters long.

The conditions of the ureter requiring surgical interference are considered under the following captions: Anomalies, Prolapse, Ureteritis, Calculus, Fistula, Tumors, Valve Formation and Stricture. Anomalies and Prolapse of the ureter are rare. The former comprise double ureter and abnormal termination of the lower end of ureter. Delbet's classification of termination is given as follows: (a) In the bladder. (b) In the rectum. (c) In the prostate, urethra, and seminal vesicles. (d) In the female, into the vagina, uterus, clitoris, and urethra.

Ureteritis may be simple or tuberculous and is principally of value as an aid to the diagnosis of renal disease, for when the kidney is the seat of disease, the changes in the uretheral orifice often become very marked. The diagnostic value of cystoscopic inspection of the ureteral orifices is demonstrated in the report of three cases. In one, a man, with symptoms suggesting renal calculus for years, radiograph negative, urine only slightly purulent, the cystoscope revealed abnormal left ureteral opening; operation showed kidney and ureter tuberculous and completed as nephro-ureterectomy. The prolapsed and hyperemic condition of the orifice always suggests tuberculosis. Another case is given of a man complaining of chronic sinus of lumbar region, with supposed necrosis of rib, no history of renal disease, urine clear but, in order to make complete examination, cystoscopy was performed which revealed atrophy of left trigone and no urine flowing from left ureter. Diagnosis of obstruction was made; X-ray showed calculi in left kidney and operation demonstrated that the ureter was blocked by a pelvic stone.

Ureteral calculi are well illustrated by cuts and the author's case of a stone impacted and protruding from ureteral orifice is pictured. The points of predilection for the lodgment of calculi in the pelvic ureter are given as: the paraischial, the juxtavesical, the intramural, and the intravesical. In the female, the broad ligament furnishes a common point for impaction. In the male, Dr. Young has collected nineteen operated cases, including three of his own. He removed two extra-peritoneally by the iliac route and one, a calculus impacted in the intravesical orifice, was removed by means of a ureteral catheter. The choice of route for stone in the pelvic ureter has been in dispute, Morris prefering the sacral, Fenwick the perineal, and Fenger asserting that this portion of the ureter was beyond the reach of the surgeon. Since the appearance of Israel's book, reporting seven cases removed by his extra peritoneal iliac incision, this has been disproved. Young from his own cases, disagrees with Morris and Fenwick, being convinced with Israel that the iliac is the only justifiable method of approach.

Dr. Young completes his paper by a report of his cases in full.

HAWLEY.

URETER-CATHETERISM: ITS PURPOSES AND PRACTICABILITY. (By Bransford Lewis, M. D., Annals of Surgery, Jan., 1903.)

The value of ureteral catheterization is given as twofold, for diagnosis and for treatment.

DIAGNOSIS.—To locate the origin of pus or blood, as to whether they come from the bladder or from one or both kidneys. To recognize and locate obstructive conditions in the ureter. To determine the presence of one or both kidneys. To determine the functional capacity of each kidney. In renal disease, to determine whether one or both kidneys are affected.

TREATMENT.—To enlarge strictures of ureters. To irrigate and medicate the ureters and pelves of the kidneys. To assist the passage of calculi and plugs of pus and blood through the ureters. To use the ureter, after it is cathetrized, as a guide in certain abdominal and pelvic operations. By prolonged catheterization and drainage of a ureter to assist in the cure of ureteral fistulae.

The Bransford Lewis ureter-cystoscope, made by the Rochester Surgical Appliance Company, is described in detail. The early forms of this instrument were presented before the American Association of Genito-Urinary Surgeons, May, 1900, and in the Journal of Genito-Urinary and Cutaneous Diseases, 1900, page 420. This cystoscope is of the Brenner type, having direct instead of reflected vision. It carries two channels for ureter catheters and is fitted with the "cold lamp." Air inflation only is used. In this respect alone does it differ from its prototype, the Brenner cystoscope. Two models are illustrated, a male of moderate calibre and a female, shorter and of larger calibre.

The author remarks that "while no harm comes from the moderate inflation of the bladder with air, it is a fact that air is slightly more irritating to the membrane than water; but this is especially true of cold air. To obviate this, I am now using warm air secured by an assistant holding the intake bulb over an alcohol flame during the process of inflation." HAWLEY.

UNILATERAL DISEASE OF THE KIDNEY SIMULATING STONE. (By Joseph Ransohoff, M. D., F. R. C. S., Journ. A. M. A., May 30, 1903.)

Dr. Ransohoff points out the failure, which surgeons have often experienced in operations for renal calculus, in not finding the much sought for stone. He cites seeing one of the foremost renal surgeons fail to find a stone in two cases within ten days and says, that were Tiffany to rewrite a paper presented before the American Surgical Association in 1889, he might readily present the report of 200 cases instead of 21, in which the kidney was explored for stone with negative result.

Two questions are put forward and discussed. They are: (1) Have we any positive and absolute method of recognizing stone in the kidney? (2) Are there not other pathological conditions of the kidney, the symptom-complex of which covers to a nicety that of stone? A negative answer is given to the first question after a careful review of each sign, symptom, and clinical method and the weight of evidence each holds in the diagnosis of nephrolithiasis. The X-ray offers the most accurate aid, but even here error exists.

Renal affections simulating stone and tuberculosis are given as, —unilateral, chronic interstitial, parenchymatous and capsular nephritis and attention is called to cases of this kind in Rayer's classical treatise on the kidney. Dr. Ransohoff closes by reporting in detail a case of this sort. The patient, a man, presenting the history of renal colic extending over many years, with intermittent frequency of micturition, gave on examination tenderness over right kidney and ureter. Urine was clear and free from albumin and casts but centrifuged sediment revealed a few red blood corpuscles. Cystoscopic examination negative. Operation for stone failed to detect any and was completed as a nephrolithotomy. Pathological specimen removed showed glomerulonephritis and granular degenerative changes of the tubular epithelium with desquamation. Recovery and permanent cure followed operation. Pathologically, this case is considered one of a typical chronic inflammation of the kidney. HAWLEY.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

PROGRESSIVE MEDICINE. A QUARTERLY DIGEST OF ADVANCES, DISCOVERIES, AND IMPROVEMENTS IN THE MEDICAL AND SURGICAL SCIENCES. (Edited by Hobart Amory Hare. December, 1902. $6\frac{1}{2}$x$9\frac{3}{4}$ in., 422 pp. Lea Bros. & Co., Philadelphia and New York.)

Contents: Diseases of the digestive tract and allied organs, liver, pancreas and peritoneum, Max Einhorn; Anesthetics, amputations, surgery of the extremities and orthopedics, Joseph C. Bloodgood; Genito-urinary diseases, William T. Belfield; Diseases of the kidneys, John Rose Bradford; Physiology, A. P. Brubaker; Hygeine, Charles Harrington; Practical therapeutic referendum, E. Q. Thornton.

This work, in my opinion, surpasses that of any other Annual, or Year book, or similar publication. The separate volumes, published quarterly, treat of different subjects, the four volumes issued during the year completing the consideration of all departments of medicine. Each department is directed by a recognized leader in his special subject and the result is that the contributions are not mere rehashes or indiscriminate collections of all recent medical literature but rare discretion is shown in selecting the most valuable articles and also unusual fairness in the presentation of all views upon any given subject. Yet what gives the book its greatest usefulness are the judicious comments and criticisms liberally bestowed through the text by the authorities editing the various departments.

Einhorn gives new and rapid tests for HCl estimation and treats of esophagoscopy in an illuminating manner; also of many gastric and intestinal diseases and progress in relation to diet, new growths, disorders of the appendix, pancreas and gall bladder, reflecting the views of many different authors. Bloodgood considers the new ideas on treatment of shock and hemorrhage and reports five cases of tetanus from gelatin injections and that three out of eight samples of gelatin contained the tetanus bacilli. Solutions of gelatin must be boiled for forty minutes to kill the spores of this disease.

The subject of anesthetics is elaborately considered. The case is cited of a healthy young girl dying from chloroform inhalation five days after the anesthesia, with jaundice and coma, the urine containing albumin and casts. There is an interesting comparison between the effects of ether alone and ether following the use of nitrous oxide. Time to anesthetize with ether thirteen and one-half minutes; with nitrous oxide followed by ether, only three and one-third minutes. A saving of ether by the latter method to the amount of 40 per cent. is recorded so that economically, as well as on account of the other advantages, this method should be adopted in all hospitals. The superiority of rubber gloves is shown in that the percentage of suppuration in the Johns Hopkins hospital following herniotomy has been reduced from 9.6 to 1 or 2 per cent. by their use.

The sweating of the hands which gloves produce causes an increase of skin bacteria and corresponding danger of infection if the hands are removed from the gloves without washing, or if the gloves are broken. There are most thorough articles in this section on fractures, joint infections and affections, and malignant tumors of bones.

Belfield describes in detail the various infections of the genito-urinary tract, bringing forward authors who have found as many as twenty-five varieties of bacteria flourishing in this part of the body. Special attention is given to gonococci and tubercle bacillus.

Under movable kidney a new method is quoted whereby skiagrams of a metallic catheter introduced into the ureter to kidney are used to differentiate between renal tumors and malignant growths and to locate the organ. Urinary segregators of all kinds are most unhesitatingly condemned.

Bradford relates recent progress in knowledge concerning the kidney; that chronic nephritis may be unilateral and amenable to surgical relief by nephrectomy, nephrotomy and removal of the fibrous capsule. Edebohls' statistics with the latter operation are marvellous. Eighteen cases of chronic Brights disease consisted of thirteen chronic interstitial, two chronic parenchymatous and three of chronic diffuse nephritis. In nine of these cases the disease was unilateral. One year after removing the fibrous capsule, in twelve of these cases eight remained cured. Edebohls' decortication is thought to allow of anastomoses with the surrounding tissues and therefore to cause improved blood supply. The greater frequency of stone in the ureter than in the kidney is referred to, the proportion of calculi in the ureter to those in the kidney being as 3:2. Many writers on the uses of ureteral catheterization are quoted, and the cure of pyelitis by irrigations through a catheter are reported; also the use of drainage after nephrotomy to prevent permanent fistulae by retention of the ureteral catheter for eighteen to twenty-four days. In relation to the bladder the recovery of incontinence after the injection of 1cc. of 2 per cent. cocaine into the spinal canal every other day, for two or three days, is recorded. The consideration of ulcer, hypertrophy, rupture and extirpation of the bladder are also to be found. The result of recent studies of stone in the bladder teach that crushing is always to be preferred when possible and that it is possible much more frequently than those not familiar with lithotrity imagine. The occurrence of stone appears to be endemic in certain localities but its causation is unknown, having nothing to do with the geological formation of the neighborhood, nor with any other ascertained fact except parasitic invasion of the bladder which occurs in Egypt. As touching hypertrophy of the prostate, the last word tells that castration methods are dead, that the Bottini operation, recently resurrected, has now been decently reintered, and that the latest operation is one which leaves the urinary tract unharmed and not subject to the danger of infection. Such an operation is considered as approaching the ideal and one form has been devised by Andrews which allows the prostate to simply drop down by division of some of the levator ani fibres, the fascia and pubo-prostatic ligaments anterior to the urethra, and excision of the preurethral portion of the prostatic ring. Details of this ingenious operation are given. At the meeting of the American Urological society just passed, the consensus of opinion was that some form of an operation for dislocation of the prostate is the coming operation.

The new methods of determining kidney function receive full attention; there is also an interesting consideration of functional albuminuria and the conclusions are reached that neither albumin nor casts are signs of renal disease but that the presence or absence of vascular changes, the quantity and specific gravity of the urine and general considerations must guide us in determination of causation of albuminuria. All forms of nephritis are given lengthy consideration.

To cut short the all too-long review of this interesting book Brubaker recounts Loeb's work and criticisms on the same, and reviews the current literature on metabolism, foods, blood and circulation. Harrington informs us of recent knowledge in regard to milk, water, food preservatives, malaria, yellow fever, typhoid, dengue, small pox, beriberi, diphtheria and tuberculosis. Thornton closes the volume with an excellent referendum on therapeutic progress. WINSLOW.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygeine and Other Topics of Interest to Students and Practitioners by Leading Members of The Medical Profession throughout the world. (Edited by A. O. Kelly. Vol 1. Thirteenth series, 1903. 6x9½ inches. 300 pp. J. B. Lippincott Co., Phila.)

This valuable repertory of clinical teaching is too well known to the medical profession to require any general description. The typography and paper are of the usual excellence and the book abounds in cuts and photographic plates. Osler's lecture on aortic aneurysm; The Nauheim and other methods of treating chronic heart disease, by Satterwaite; and Finger's clinical lecture on chronic urethritis would alone repay one for the cost of the book.

Among other articles of special worth are: Acquired umbilical hernia, by Ross, of Toronto; The enduring results of total bilateral resection of the cervical sympathetic in Basedow's disease, by Jonnesco, of Bucharest; On the causation, treatment and prognosis of convulsions in young children, by Thomson, of Edinburgh.

The progress department of ninety pages is good and altogether the volume is well up to its usual high standard. WINSLOW.

REPORT OF CONTAGIOUS DISEASES

TO THE WASHINGTON STATE BOARD OF HEALTH FOR MAY, 1903.

COUNTY.	SMALLPOX.		SCARLET FEVER.		DIPHTHERIA.	
	CASES.	DEATHS.	CASES.	DEATHS.	CASES.	DEATHS.
Adams	1	0	1	0	....	....
Clarke	21	0	....	....	....	....
Douglas	....	....	....	....	....	....
King	3	0	4	0	2	0
Lewis	2	0	8	0	....	....
Okanogan ...	7	3	....	....	....	....
Spokane	....	....	5	0	3	1
Snohomish ...	11	0	....	....	2	0
Walla Walla..	7	0	1	0	....	....
Whitman	1	0	....	....	....	....
Whatcom	3	1	1	0	....	....
Yakima	1	0	18	0	....	....
Seattle (city).	9	0	51	1	3	2
Spokane "	....	....	7	1	1	0
Tacoma "	4	0	12	1	7	1
Total.....	70	4	98	3	18	4

Contagious diseases in cities of the first class are not included in the county reports.

While smallpox was reported from ten counties and two cities during May, the situation is on the whole very much improved as the disease is apparently under good control in all counties except Clark and Snohomish.

In Okanogan county but one case remains and in Walla Walla county there are now only four cases, all confined in the pest house. The two cases in Lewis county both came from Oklahoma Territory, and were well developed cases on their arrival in this State. Spokane is free from smallpox for the first time for two years.

MEDICAL SOCIETIES.

NAME. MEETINGS HELD.

ashington State Medical Association....................Sept. 1, 2, 3—Spokane
President, Chas. McCutcheon, M. D.; Secretary A. H. Coe, M. D.

ehalis County Society................................Second Tuesday—Aberdeen
President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

ng County Society............................First and Third Monday—Seattle
President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

erce County Society.......................Second and Fourth Tuesday—Tacoma
President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.

agit County Society ....
President, F. B. West, M. D.; Secretary, C. C. Harbaugh, M. D.

ohomish County Society.............................First Thursday—Everett
President, J. R. Hathaway, M. D.; Secretary, C. A. Mead, M. D.

okane County Society..............................First Thursday—Spokane
President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.

alla Walla County Society.....................Second Wednesday—Walla Walla
President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.

atcom County Society.............................Second Monday—Whatcom
President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

hitman County Society ....
President, Wilson Johnston, M. D.; Secretary, H. B. Clough, M. D.

kima County Society............................First Tuesday—North Yakima
President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.

egon State Medical Association..........................September—Portland
President, H. W. Coe, M. D.; Secretary, A. D. Mackenzie, M. D.

ty and County Medical Society of Portland..........First Wednesday—Portland
President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.

ltnomah County Medical Society...................First Tuesday—Portland
President, E. M. Crockett, M. D., Secretary, L. Victoria Hampton, M .D.

ontana State Medical Association......................June 17 and 18—Helena
President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.

lver Bow Medical Society...............Second and Fourth Wednesdays—Butte
President, Donald Campbell, M. D.: Secretary, J. A. Donovan, M. D.

aho State Medical Association..............................Oct. 8 and 9—Boise
President, George Collister, M. D.; Secretary, E. E. Maxey, M. D.

rthern Idaho District Medical Society.........................June 9—Lewiston
President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.

uthern Idaho District Medical Society.............................July—Hailey
President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.

ritish Columbia Medical Association.......................September—Victoria
President, O. M. Jones, M. D.; Secretary, C. J. Fagan, M. D.

ancouver Medical Society...Vancouver
President, R. C. Boyle, M. D.; Secretary, J. S. Conklin, M. D.

ew Westminster Medical Society............Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal.

SEATTLE NURSES' BUREAU

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NAME.	QUALIFICATION.
BEAN, MISS ALTA	Graduate Grace Hospital, Detroit.
BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L.	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M.	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
CONNELLY, MISS LOU	Graduate Asbury Hospital, Minneapolis.
CUDHIE, MRS. M. A.	Graduate St. Luke's Hospital, St. Louis.
CROWL, MISS FLORENCE I.	Graduate Seattle General Hospital.
DAM, MRS. EVA L.	Graduate Seattle General Hospital.
DE VECKMON, MRS. E.	Graduate Seattle General Hospital.
FREMMING, MISS THORA H.	Graduate City and County Hospital, St. Paul.
FEEHAN, MISS ANNA	Graduate St. Joseph's Hospital, St. Paul.
GREEN, MRS. ANNIE G.	Graduate Good Samaritan Hospital, Portland.
GREGG, MISS MINNIE	Graduate Women's Hospital, Syracuse, N. Y.
HUGHES, MISS M. A.	Graduate Dublin General Hospital.
HUBBS, MRS. F. H.	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E.	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
KENNEDY, MISS	Graduate St. Luke's Hospital, Duluth; Sloan Maternity, New York.
LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B.	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W.	Graduate Royal Jubilee Hospital, Victoria.
RAY, MISS JENNIE	Graduate Seattle General Hospital.
SHROEDER, MISS H. L.	Graduate Seattle General Hospital.
SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
SLATER, MISS MAME	Graduate Eastern Illinois Hospital.
SHIACH, MISS MARY	Graduate Seattle General Hospital.
STRAHL, MISS INEZ	Graduate Asbury Hospital, Minneapolis.
STRONACH, MISS MINNIE	Graduate Brompton Hospital, London.
WAGNER, MISS IDA	Graduate Riverside Hospital, Milwaukee.
WANAMAKER, MISS NIDA	Graduate Seattle General Hospital.

NORTHWEST MEDICINE

July, 1903.

ORIGINAL ABSTRACT

THE MORTALITY IN APPENDICITIS, ITS CAUSE AND LIMITATION.

By Dr. A. J. Ochsner,

CHICAGO, ILL.

(An abstract, made by direction of the author, of a paper read before the Wayne County Medical Society, Detroit, Mich., Dec. 18, 1902; the original published in The Medical News of May 2, 1903.)

The author uses as an illustration all cases of appendicitis operated by him in the Augustana hospital during the eleven months from January 1, 1902, to December 1, 1902—three hundred and thirty-seven cases in all. Of these, one hundred and ninety-two were acute and one hundred and forty-five chronic. Of the former class, eighty-one suffered from perforative or gangrenous appendicitis, with more or less extensive peritonitis; thirteen of these suffered from diffuse peritonitis at the time of admission. One hundred and eleven cases suffered from acute appendicitis without perforation, the pus being confined to the lumen or the tissues of the appendix.

The general plan of treatment adopted was as follows: In every case of acute appendicitis entering the hospital all food by mouth and all cathartics were prohibited. In case the patient suffered from nausea or vomiting, gastric lavage was at once employed. In the milder cases the patient was permitted to rinse the mouth with cold water and to drink small sips of very hot water at short intervals. In the severer cases the patient was permitted to rinse the mouth with cold water, but was not permitted to drink either hot or cold water for the first few days until the acute attack had subsided. when the use of small sips of hot water was begun. If the nausea persisted, gastric lavage was repeated once or twice at intervals of two to four hours, in order to remove any substance which had regurgitated into the stomach from the small intestines.

The patient was supported by nutrient enemata consisting of an ounce of one of the concentrated predigested liquid foods in the market, dissolved in three ounces of warm normal salt solution, introduced through a catheter which was inserted a distance of two and one-half to three inches. In case this gave rise to pain, irritation or nausea, it was interrupted for twelve to twenty-four hours at a time. In cases in which no water was given by mouth, an enema of eight ounces of normal salt solution was given four to six times a day in addition to the nutrient enemata. In cases operated during the acute attack this treatment was continued for several days after the operation.

After the patient had been free from pain and otherwise practically normal for four days, he was first given from one to four ounces of weak beef tea, preferably prepared from commercial beef extract every two hours. In a few days one of the commercial predigested foods, dissolved in water, was substituted; still later, equal parts of milk and lime water, then general liquids, then light diet and finally, after the patient had fully recovered, full diet was given.

The rule which was followed as regards the time of operation varied with the individual cases. In any given case, the operation was performed at the time the patient entered the hospital, or if this occurred at night, on the following morning, provided it seemed clear from the condition of the patient that he would recover if the operation were performed at once, judging from the author's own experience in similar cases treated in the past. This could usually be expected in severe cases admitted before the end of thirty-six hours from the beginning of the attack, and in the milder cases during a longer period. In all cases in which the recovery seemed at all doubtful, the operation was postponed and the patient was placed under the treatment described above until the acute condition had subsided. In some of these cases it became necessary to open a circumscribed abscess and later to make a second operation for the removal of the appendix. In other cases the inflammation became circumscribed and the appendix could be safely removed, the pus sponged out of the circumscribed abscess, the abdominal wound could be closed, a drain being introduced through a small incision two inches external to the abdominal incision.

Of the eighty-one patients suffering from perforative or gangrenous appendicitis, thirty-seven were operated at once, and forty-four were treated for a period varying from four days to five weeks, by the method described above, before the operation was performed.

Of the one hundred and eleven cases of acute appendicitis without perforation, one hundred and seven were operated upon admission and four were subjected to the treatment described above for a number of days previous to the operation. It should be stated here that in each of these four cases the author had diagnosed perforative appendicitis, because of the severe peritoneal irritation and also that among the thirty-seven cases of perforative appendicitis which were operated at once, there were several in which the author had expected to find the infectious material still confined to the appendix at the time of the operation.

The one hundred and forty-five cases suffering from chronic recurrent appendicitis admitted during the interval between attacks were all operated within a day after their admission.

In the cases which were first subjected to the starvation treatment, the time of operation was chosen whenever the patient's condition seemed to indicate that the operation would be safe or whenever a circumscribed abscess had formed which could be opened externally without exposing the patient to the risk of infecting the general peritoneal cavity. The form of preliminary treatment described above was employed in all of those cases in which the author's former experience had taught him that the immediate operation would be followed by a high mortality, a class of cases which come to the surgeon on the third, fourth, fifth, sixth and seventh days after the beginning of the attack with severe distension of the abdomen, tense abdominal muscles, a bad facial expression, marked nervousness, pulse above 100, persistent nausea or vomiting, *and always a history of having received cathartics and some form of liquid nourishment by mouth.*

The following table gives the mortality:

		Number Deaths.	Per Cent.
Entire number of cases operated	337	7	2
Entire number of acute appendicitis	192	6	3
Entire number of chronic appendicitis	145	1	1

The author states that every patient who applied for admission was received without regard to the severity of the case, and that this list includes all of the patients who entered the hospital suffering from diffuse peritonitis resulting from appendicitis. Were these cases eliminated, the mortality would be almost ideally low, because three of the six patients who died in the group of cases suffering from acute appendicitis were virtually in a hopeless condition when they entered the hospital. Two of these were not operated, but their deaths are counted in order to make the statistics include all the deaths which occurred in patients treated for appendicitis during this period.

A short abstract of the histories of all the fatal cases is given in order that a fair idea may be obtained of the character of these cases:

Case I. A boy, four years old, who had formerly been in good health, became suddenly very ill after taking an unusually large meal followed by candy, nuts and fruit. He had complained of stomach ache before taking this meal, but notwithstanding this he ate a large amount. The patient complained of pain in the region of the stomach, and his mother attributed his condition to indigestion and gave him a large dose of castor oil. He came to the hospital forty hours after the beginning of the attack. and it seemed to the author likely that the entire infection would still be found in the appendix. The author consequently operated at once, but found a perforated appendix and a diffuse peritonitis, of which the child died eleven days after the operation. Had the author not erred in his diagnosis and consequently had not added the traumatism of the operation to the existing peritonitis, this patient would probably have recovered. The fact that the child lived eleven days after the operation would indicate that the peritoneum would have been capable of disposing of the infection, had not the traumatism been added.

Case II. This patient, an emaciated man forty-four years of age, entered the hospital at the end of an acute attack, which had not been very severe. He had suffered from recurrent attacks of appendicitis at various intervals for a period of about twenty years. The last three attacks had been more severe, and he was unable to recuperate from them. The author operated at once and found a severely congested appendix, club-shaped at the distal end and constricted at the cecal end. It was universally adherent to the lower end of the cecum and the distal end, which contained a small amount of pus, was adherent to the anterior surface of the iliacus muscle. The appendix was dissected out and the wound was closed. The patient died on the seventh day from peritonitis. The autopsy showed a small amount of cloudy fluid in the pelvis. The infection had started from the tissues to which the club-shaped end of the appendix had been adherent, the infection having evidently extended through the walls of the appendix during the late acute attack. This death could have been avoided by proper drainage. It is to be charged to faulty technic.

Case III. This patient, an anemic, emaciated, sickly boy eight years old, entered the hospital on the seventh day of an attack of acute perforative appendicitis with a rather mild form of diffuse peritonitis. His general condition was so bad that it seemed as though he would undoubtedly succumb to an operation. His condition never improved sufficiently to make the operation appear safe, and it was postponed from day to day until the child died three weeks after entering the hospital. It is of course possible that this patient might have recovered had an operation been performed, but it did not seem so at the time.

Case IV. This patient, a strong, well-nourished man thirty-nine years of age, entered the hospital on the tenth day after the beginning of an attack of acute perforative appendicitis. He was placed on the treatment by means of exclusive rectal feeding for four days, during which time he improved greatly. At the operation a universally adherent appendix was found, extending down into the pelvis. It was perforated at the end and surrounded by an abscess containing half an ounce of pus. The appendix was enucleated, the pus sponged away and the cavity drained. The operation started a violent peritonitis, of which the patient died fifty hours after the operation. Had the treatment with exclusive rectal feeding been continued for a week longer, until the virulence of the infectious material in the abscess had been reduced, this patient would undoubtedly have recovered.

Case V. This patient, an exceedingly obese man thirty-eight years of age, entered the hospital on the third day of an acute perforative appendicitis, suffering from diffuse peritonitis. He had been treated with calomel and large doses of saline cathartics, repeated every hour during the day preceding his admission. He was in an absolutely hopeless condition, his pulse was almost imperceptible and his temperature 103° F. He died thirty-six hours after entering the hospital. No operation was performed. This patient's death was undoubtedly due to the administration of cathartics, because the severe symptoms did not appear until after this form of treatment was begun.

Case VI. This patient, a millwright by trade, thirty-one years of age, entered the hospital on the fourth day of an attack of acute perforative appendicitis with a severe diffuse peritonitis. His pulse varied from 110 to 160 and his temperature reached 105° F. He was placed on exclusive rectal alimentation and his condition improved constantly. Ten days after admission his temperature was 99° F. and his pulse below 100. There was a swelling and an area of tenderness in the vicinity of McBurney's point. The author made an incision through the abdominal wall and found the intestines so diffusely adherent to the abdominal wall and to each other and to the omentum that he abandoned the operation and simply inserted a strand of iodoform gauze for drainage and left the wound open. The patient did well for a week when an intestinal fistula formed; a few days later he had a hemorrhage, this was repeated on the second day and again a week later. He died thirty-six days after entering the hospital, and twenty-six days after the operation, from exhaustion due to the repeated hemorrhages from the fistula in the small intestine. In this case the death might have been avoided had the operation been further postponed. After the first hemorrhage it seemed as though the patient's weakness contra-indicated an operation for locating and tying the bleeding vessel, which, however, the author should do in the future in a similar case. The case occurred during the recent epidemic of typhoid fever, and for a time the author thought that the case was one of perforative typhoid ulcer, but the Widal test was negative.

Case VII. This patient, a woman thirty-four years of age, suffered from a chronic recurrent appendicitis complicated with secondary infection of both Fallopian tubes. The appendix and both Fallopian tubes were removed. The ligature applied to the stump of one of the tubes cut through the pedicle formed and the patient died from hemorrhage from the left ovarian artery. This death can, of course, not be attributed to the appendicitis operation, but it is counted because the operation was primarily undertaken for the relief of a recurrent appendicitis.

A review of these cases will show that the mortality could be further reduced by eliminating errors in technic.

The author is certain that the very low mortality is due to the fact that the forty-eight patients in whom an immediate operation did not promise recovery were placed under proper preparatory treatment before the operation was undertaken, and if this plan were generally adopted he has no doubt but what the mortality in acute appendicitis would be enormously reduced.

The lowest mortality following the operative treatment of acute appendicitis by any author who has operated upon a large number of cases, whose reports the author has been able to obtain, is a little less than 14 per cent., excepting the experience of Mayo, whose mortality in these cases is below 3 per cent., which he attributes to the fact that he follows the method described at the beginning of this paper in all cases in which there is any doubt concerning a recovery if an immediate operation is performed.

This method contemplates the removal of the diseased appendix at the very beginning of the attack before the remaining portion of the peritoneal cavity has been infected in all cases in which this is possible, and in cases in which this is not possible, because the infection has already passed beyond the tissues of the appendix, it contemplates changing a very dangerous acute into a relatively harmless chronic condition by inhibiting peristalsis and giving the peritoneum an opportunity to remove the existing infection by absorption or to circumscribe it by forming adhesions, at the same time reducing the virulence of the infectious material.

The following table shows interesting observations, which the author's assistant, Dr. Ralph Daniells, has made regarding the effect of this form of treatment upon leucocytosis. The author is not prepared to state whether these observations are of much practical value. They are certainly very interesting.

These two cases, which Dr. Daniells considers quite typical, were in the hospital at the same time; the second one under the form of treatment described in the beginning of this paper and the first one under a form of treatment known under the ambiguous term of expectant treatment. In both cases the leucocytes were rapidly reduced under the starvation treatment, in the second case permanently. In the first case there was a rapid increase as soon as a slight amount of calomel and a little food were given. As soon as this was again prohibited, the leucocytes at once dropped rapidly.

CASE I.

AGE.	DATE.	WHITE CELLS.	CONDITION UNDER WHICH BLOOD WAS TAKEN.
Male 21	June 6	17,600	At time of entering hospital acute perforative appendicitis fourth day of attack.
	" 7	15,800	Exclusive rectal feeding 24 hours.
	" 9	10,200	Exclusive rectal feeding for 72 hours. Calomel given at end of this time, 2-10 grains.
	" 10	14,600	Calomel again given June 10, also a little soft food.
	" 15	23,400	This was continued for four days, when all food and medicine were stopped by mouth on June 15.
	" 16	20,600	At this time the patient was operated.

This case was under the care of a physician who did not fully appreciate the importance of absolute prohibition of even small amounts of food and cathartics by mouth at the time this observation was made.

CASE II.

AGE.	DATE.	WHITE CELLS.	CONDITION UNDER WHICH BLOOD WAS TAKEN.
Male 19	June 11	9,100	At the time of entering hospital, acute suppurative appendicitis.
	" 12	5,500	Exclusive rectal feeding employed at once.
	" 13	5,800	Exclusive rectal feeding.
	" 15	6,000	Exclusive rectal feeding.
	" 16	5,000	Operated. The infection was found confined to appendix.

This patient received the typical treatment described at the beginning of this paper.

The observations made during this year's experience again confirm the following conclusions, which are borne out by the author's very extensive clinical experience extending over a number of years.

1. The mortality in appendicitis results from the extension of infection from the appendix to the peritoneum or from metastatic infection from the same source.

2. This extension can be prevented by removing the appendix while the infectious material is still confined to this organ.

3. The distribution or extension of the infection is accomplished by the peristaltic action of the small intestines.

4. It is also accomplished by operation after the infectious material has extended beyond the appendix and before it has become circumscribed.

5. Peristalsis of the small intestine can be inhibited by prohibiting the use of every form of nourishment and cathartics by mouth and by employing gastric lavage in order to remove any substances of food or mucus from the stomach.

6. The patient can safely be nourished during the necessary period of time by means of nutrient enemata.

7. In case neither food nor cathartics are given from the beginning of the attack of acute appendicitis and gastric lavage is employed, the mortality is reduced to an extremely low percentage.

8. In cases which have received some form of food and cathartics during the early portion of the attack and are conse-

quently suffering from a beginning diffuse peritonitis when they come under treatment, the mortality will still be less than 4 per cent. if peristalsis is inhibited by use of gastric lavage and the absolute prohibition of all forms of nourishment and cathartics by mouth.

9. In this manner very dangerous cases of acute appendicitis may be changed into relatively harmless cases of chronic appendicitis.

10. In my personal experience no case of acute appendicitis has died in which absolutely no food of any kind and no cathartics were given by mouth from the beginning of the attack.

11. The mortality following operations for chronic appendicitis is exceedingly low.

12. Were peristalsis inhibited in every case of acute appendicitis by the methods described above,—absolute prohibition of food and cathartics by mouth and use of gastric lavage,—appendectomy during any portion of the attack could be accomplished with much greater ease to the operator and correspondingly greater safety to the patient.

The author makes the following suggestions for the treatment of appendicitis with a view of reducing the mortality:

1. Patients suffering from chronic recurrent appendicitis should be operated during the interval.

2. Patients suffering from acute appendicitis should be operated as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.

3. Aside from insuring a low mortality this will prevent a series of complications, mentioned elsewhere in this paper.

4. In all cases of acute appendicitis without regard to the treatment contemplated the administration of food and cathartics by mouth should be absolutely prohibited.

5. In case of nausea or vomiting or gaseous distention of the abdomen, gastric lavage should be employed.

6. In cases coming under treatment after the infection has extended beyond the tissues of the appendix,—especially in the presence of beginning diffuse peritonitis,—conclusions four and five should always be employed until the patient's condition makes operative interference safe.

7. In case no operation is performed neither nourishment nor

cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days.

8. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later small sips of very hot water frequently repeated may be given and still later small sips of cold water. There is danger in giving water too freely.

9. All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth in cases suffering from acute appendicitis.

10. It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by mouth may give rise to dangerous peristalsis.

11. The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution introduced slowly through a soft catheter, inserted into the rectum a distance of two to three inches.

12. This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation.

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ORIGINAL CONTRIBUTIONS.

RENAL INSUFFICIENCY*

By G. W. Hawley, M. D.

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To Virchow is attributed the introduction of the two terms, "anatomical diagnosis" and "functional diagnosis," which have found their way so much of late into medical literature. He it was who pointed out that in the diagnosis of disease it was not only important to determine the nature of the morbid process existing in an organ, the "anatomical diagnosis," but the degree to which that organ carries on its given function, its "functional sufficiency or insufficiency;" the "functional diagnosis." This subject of functional diagnosis has attracted much attention and a vast amount of investigation during the last few years, especially in the endeavor to establish practical clinical methods for the accurate determination of renal insufficiency. It is along this line that Koranyi of Budapest, Kuemmell of Hamburg and Casper and Richter of Berlin, have done so much noteworthy work.

In our consideration of this question of renal insufficiency and the methods advanced for its estimation, it will serve to a clearer understanding of them and their significance if we briefly review a few points in renal physiology and pathology. The two kidneys fill, dually, one of the most important offices in the human animal economy, namely, the removal of the greater part of the waste products circulating in the blood. Nature has supplied a specialized tissue to perform this work and has arranged and distributed it equally in these two organs, enabling them to carry on the function allotted to them jointly. In the human economy the kidneys are to be considered as one organ fulfilling one line of work.

When one or both kidneys are diseased and there exists a degeneration or a destruction of renal cells, the number of functioning calls is reduced; the kidneys fail in the performance of the quota of work assigned them; renal function is insufficient. Nature has, however, provided for these contingencies by the process of regeneration and of compensatory hypertrophy and is thus, in some instances, able to establish complete function; in some to raise functional capacity in moderate degree; and in still others is unable to raise it at all.

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*Read before the King County Medical Society, Seattle, Wash., May 4, 1903.

In diseases of the kidneys, therefore, we can have cases in which the degree of renal insufficiency is in direct proportion to the amount of renal tissue destroyed, others in which the degree of renal insufficiency is slight and out of proportion to the extent of the disease, and also cases in which, though the kidneys are diseased and even partially destroyed, renal function is entirely compensated, presenting the picture of disease of the kidneys with no renal insufficiency.

The significance of functional diagnosis, of the determination of renal insufficiency and sufficiency, can be readily recognized, for, though the anatomical diagnosis, the detection and estimation of the pathological constituents of the urine and other clinical phenomena of renal disease, points out the nature of the disease process and to a certain degree the extent of that process, it tells us nothing regarding the varying degrees of functional capacity, except in the late stages of chronic renal disease. It fails to differentiate those cases of nephritis in which there is marked renal insufficiency; those in which insufficiency is slight; and those in which renal function is sufficient.

In the bilateral renal affections, the so-called Bright's group, the practical importance of estimating renal function is as follows: (1) as a guide to prognosis in showing which cases are functionally compensating through regeneration and repair of the renal parenchyma, and which are not; and (2) as an indicator of the risk of ether and chloroform anesthesia and of the increased danger of reflex anuria in urogenital operations, in pointing out in which cases of nephritis renal function is sufficient to permit of these procedures, and which exhibit a degree of insufficiency so low that the risk and danger is extreme.

In the surgical diseases of the kidneys, the diagnosis of functional insufficiency is of especial practical value as the only means of establishing an accurate guide to the risk of renal operations, particularly that of nephrectomy. Since Simon, who in 1869 performed the first nephretomy—thus proving in the human subject that one kidney is able to hypertrophy and carry on the double work—it has been known that the result of nephrectomy (except for the ordinary surgical danger) is dependent entirely and directly upon the ability of the remaining kidney to assume the increased work. This compensation takes place most readily when the remaining kidney has already hypertrophied; also when it is simply normal; and even when moderately diseased. It is therefore not only of importance to determine the existence of a second kidney, but its functional sufficiency or insufficiency, for though normal or hypertrophied and sufficient, it may be diseased and hypertrophied and thus sufficient, or it may be diseased without hypertrophy and therefore insufficient.

Various methods have been advanced for the determination and estimation of renal insufficiency. They are best classed and considered according to the theory upon which each is based.

1. The tests based upon the assumption that the quantitative estimation of the urinary constituents, representing as they do the work which the kidneys perform, is therefore a measure of renal function. Of the three chief constituents of the urine, water, urea and sodium chloride, the quantitative estimation of urea representing the bulk of nitrogenous, organic ingredients, is taken as a measure of the activity of the cells of the renal tubules; and that of sodium chloride, representing the bulk of inorganic soilds, as a measure of the activity of the epithilium of the glomeruli. The determination of the quantity of urea and sodium chloride excreted gives an accurate measure of the work done by the kidneys, but, as the work which the kidneys in health perform varies with the work required, with the amount of waste products brought to the kidneys, with the extent of katabolism and with the amount of nitrogenous substance and salt ingested, and, since in renal diseases the excretion of urea and sodium chloride is often periodically suppressed and then eliminated, their quantitative estimation offers only a speculative indication of the presence or degree of renal insufficiency when taken for combined renal function. When taken for the comparative measure of activity of both organs, when the urine from each kidney is collected at the same time and during same period, these two tests offer definite data of the insufficiency of one kidney in relation to its mate, though both may be insufficient.

2. The tests based on the assumption that the detection in the urine of substances which have been previously introduced into the body, represents renal activity, thereby offering means for the measure of renal function.

The methylene blue test was the first advanced as capable of furnishing data concerning renal activity. It was announced that after being intramuscularly injected it normally appeared in the urine in from one-fourth to one-half hour and that a delay of over one hour indicated decreased renal activity. Though this proved true in interstitial nephritis it has proven false in other renal affections and has thus rightly been discarded.

The phloridzin test has since been introduced. It differs from the simple filtration of methylene blue in that functional activity of renal cells is required for the transformation of phloridzin into, and the excretion of, sugar. V. Mering was the first to note that after the introduction of phloridzin into the body—even in minute quantity—sugar appeared in the urine; that this formation of sugar is of renal origin, the direct product of the renal cells upon phloridzin. These observations have been verified by many other investigators and the conclusion has been reached that this phloridzin glycosuria is a measure of the functional activity of the renal cells, so that, the greater number of cells, the greater the elimination of sugar; or conversely, the quantity eliminated is directly proportional to the functionating renal tissue. It has been found that very small quantities may be injected without producing any ill effects and yet produce sugar in the urine sufficient for test purposes. Five milligrammes (1cc. of a one-half per cent. solution) of phloridzin has been the standard amount used for this test. Delamare made observations on 152 cases and found that in healthy subjects sugar appears in the urine in from fifteen to thirty minutes and continues for from two to three hours, being the same for both kidneys, and that the quantity excreted varies from one-half to two grammes. Watson and Bailey found that the amount excreted during the first half hour was 45 per cent of the whole quantity excreted and in the second half hour was somewhat less, markedly diminishing after the first hour. When renal function is impaired the amount of sugar eliminated is decreased and the time of its appearance is delayed;—a decrease in the amount excreted of less than one-half grain, and a delay of over one-half hour, indicating renal insufficiency.

This test is performed by injecting into the muscular tissue 1 cc. of a one-half per cent solution of phloridzin. The bladder is evacuated after fifteen minutes have elapsed. The urine for examination is then drawn off from the bladder, when the estimation of combined renal action is desired; from the ureters, when it is desired to determine the function of each kidney, and the specimens of urine tested in the usual way for the quantity of sugar contained.

In phloridzin glycosuria we have means of determining renal function. In the estimation of combined kidney action, where vesical urine suffices and is easily obtained, this method offers accurate evidence of the degree of renal function; but, when applied to the separated urines collected during a limited period, it renders precise measure only of the comparative kidney action, and in a manner the degree of function in each organ.

3. The tests based on the assumption that the blood and the urine maintain fixed points of molecular concentration and that, as the molecular concentration of the blood increases and that of the urine decreases when renal function is impaired, the estimation of the increase of the former and of the decrease of the latter furnish a means of measuring the renal function. The molecular concentration of the blood varies with the number of molecules of solids it holds in solution. The kidneys in health remove these waste products, maintaining a constant degree of molecular concentration of the blood. So long as the renal function is sufficient and the waste products not allowed to accumulate in the blood this condition exists, but when functional capacity is diminished, accumulation takes place and the molecular concentration of the blood is raised. Conversely the urine maintains, when the kidneys are normal, a fixed degree of molecular concentration which, varying as it does with the amount of waste products excreted by the kidneys, fluctuates, but only within certain limits. The normal molecular concentration of urine varies within these confines but, if renal insufficiency exists and the kidneys fail to excrete sufficiently, the molecular concentration of the urine decreases.

The only accurate means of estimating molecular concentration is found in the application of Raoult's law, that the freezing point of a solution is lowered in exact proportion to the number of molecules which it contains. This has been made use of by physicists and chemists but only recently has it been dignified by the name, "cryoscopy"—and as such popularized in the medical sciences—indicating the determination of the freezing point of blood, of urine, of milk, et cetera, and thus their molecular concentration.

The normal freezing point of blood has been found by Koranyi, Senator and others to be .55° to .57° below zero C. (the freezing point of distilled water). When renal function fails and the waste products accumulate in the blood, its molecular concentration increases and the freezing point falls below —.57° C. In complete anuria Koranyi found that the freezing point of blood may fall to —.73° C.

Likewise, experimenters have found the limitations of the freezing point of normal urine, namely from —1° to —2° C. Urine freezing between these two points is considered normal as concerns renal function. When renal function is lowered and the molecular concentration of the urine is decreased, the freezing point of the urine is raised above —1° C. There is one exception to this, one condition which in health gives a freezing point of the urine below —1° C., and that is when the urine is diluted after a large intake of water. As a source of error this can be easily be avoided.

In cryoscopy of the urine and cryoscopy of the blood are found the most accurate methods for the determination and estimation of renal function. Both are necessary in scientific experimental work but urinary cryoscopy, the most practical, is sufficient for clinical purposes.

For the carrying out of these tests, a Beckmann thermometer is used, having a scale marked off in hundredths of a degree, from zero C. to —3° C. Sufficient urine (or blood)—about 15-20 cc.—is taken to cover the bulb of the thermometer when placed in a large test tube. This is then placed in a larger test tube so as to have an air space between the tube containing the urine and the freezing mixture of salt and ice which is packed around the second tube and held in a beaker. The urine is agitated as freezing takes place. The mercury drops as congealation occurs and then rises to a fixed point which is the freezing point for that specimen.

Of all these various methods advanced for the diagnosis of renal function, only three may be considered as of accurate and practical value, viz., urinary cryoscopy, phloridzin glycosuria and the quantitative estimation of urea. After extensive experimental and clinical application they have been shown to permit of accurate diagnosis. This has been questioned and denied by some who point out instances where these tests showed no diminution of renal function when renal disease was known to have been present. When we consider that of all the cases examined a few, at least, should be found in which repair and functional compensation have taken place, instead of proving the fallacy of these tests, it points on the contrary to their accuracy. These tests have of necessity been made upon subjects suffering from renal disease, where but rarely (except in advanced disease) is immediate pathological or clinical proof of the test findings possible, and it will be only after extensive pathological and clinical proof of these findings that interpretation can be made of the degrees of renal insufficiency.

In the bilateral renal diseases where interpretation of the degree of renal insufficiency is necessary for the determination of the prognosis and of the risk of ether anesthesia, but few data are as yet available. Moritz found in twelve cases of nephritis which progressed to death, that the freezing point of the urine accorded with the degree of change found in the kidneys after death. Watson and Bailey found by the phloridzin test that in normal kidneys the renal function was not impaired by ether anesthesia. They also found that ether stimulated renal function in health but not when kidneys were diseased.

It is in the surgical renal diseases, where one kidney is often alone diseased and where the necessity of determining the absence of renal insufficiency and of establishing the sufficiency of a second kidney is of the greatest importance in indicating the advisability of operative attack upon the diseased organ, that these tests have proven of practical value.

Their practical application requires the collection of the separated urines, the only means as well for the accurate determination of the presence of both kidneys. Uretheral catheterization furnishes the only truly accurate method of accomplishing this, and the great improvements in the instruments and technic, the experience gained from its wide use, the case with which it becomes possible to many after training, has rendered it one of the most indispensable aids—not in the diagnosis alone, but in the treatment of the diseases of the kidneys. The instruments of Casper, Nitze, Albarran, Tilden Brown and Bransford Lewis have not only made ureteral catheterism possible but practicable in the male; while the Brenner cystoscope and Kelly's method have made it quite simple in the female.

The segregation of urine, as accomplished by the Harris and Downes instruments and even the new Cathelin vesical divisor, is not only difficult of proper application and painful enough to often require general anesthesia, but the results are full of error. The difficulty of application arises in the impossibility of knowing whether the bladder is divided and whether the ureters are permitted free flow. In the male, division of the floor of the bladder is rendered difficult because the prostate and the firm structure of the floor of the male bladder tend to prevent elevation of it. In both the male and the female rectal pressure, if slight, is often sufficient to stop the flow from one or both ureters. Negative findings of segregation are valueless, signifying non-separation or cystitis and as cystitis as a rule exists with renal infections, segregation is prohibited. Errors of positive findings exist for, though one side may give normal urine, pus or blood from the opposite may arise from a tuberculous ulcer or small papilloma near mouth of one ureter (a favorite site for both lesions) and absence of the flow on one side might be due to rectal pressure or one vesical blade occluding one ureteral opening. Thus the great inaccuracy of segregation, its exclusion when cystitis exists, the necessity of ruling out all possible error by cystoscopic examination, limits its usefulness to cases where ureteral catheterism is impossible.

Catheterization of the ureters is not the impossible nor dangerous procedure once considered. At the Neckar Hospital, in Paris, in nearly every case of surgical disease of the kidneys the ureters are not only catheterized for diagnostic purposes, but as an aid in operations the ureteral catheter is introduced so that when the kidney is exposed its pelvis can be dilated and more readily explored. Stockman, Albarran, Bransford Lewis and others report many cases of pyelitis, pyelonephritis, hydronephrosis and renal fistula cured by treatment per ureteral catheter. Albarren reports six cases of renal fistula cured by leaving catheter in ureter and draining for from six to eighteen days. Drainage of the ureter per catheter following nephrotomy is a recognized surgical procedure for the prevention of renal fistulae. Albarran considers cystitis and tuberculosis of the bladder no contraindication to ureteral catheterism.

The practical value of urinary cryoscopy and the phloridzin test as establishing the sufficiency or insufficiency of a second kidney when one is diseased, will be best illustrated if we take for perusal a few of the ninety cases reported by Casper and Richter, in which they catheterized the ureters and applied the above tests to the urine collected from each kidney.

NEPHROLITHIASIS OF RIGHT KIDNEY.

HISTORY OF RENAL COLIC—MALE.

URINE	RIGHT KIDNEY	LEFT KIDNEY
Amount,	26 Ccm	40 Ccm.
Δ (freezing point).	—.54° C	—1.48° C.
Sugar (after phloridzin injection)	0	1.6%
N (urea).	.38%	.76%
	Albumin	No sediment
	Pus Cells	
	Red Blood Corpuscles	

TUBERCULOSIS OF LEFT KIDNEY.

HISTORY OF CLOUDY URINE AND URINARY FREQUENCY—MALE.

URINE	RIGHT KIDNEY	LEFT KIDNEY
Amount,	16 Ccm.	10 Ccm.
Δ	—1.50° C	—.91° C
Sugar	2%	Faint trace only
N.	.63%	.38%
		Leucocytes
		Red Blood Corpuscles
		Albumin
		Tubercle Bacilli

TUMOR OF RIGHT KIDNEY.

WOMAN WITH HEMATURIA AND TUMOR IN OVARIAN REGION.

URINE	RIGHT KIDNEY	LEFT KIDNEY
Amount,	31 Ccm.	33 Ccm.
Δ	—0.95° C	—1.7° C.
Sugar	0	0.2%
N.	0.65%	0.77%
	Albumin	No albumin

PYELONEPHRITIS OF RIGHT KIDNEY.

MAN, WITH HISTORY OF GONORRHEA, FOLLOWED BY CYSTITIS.

URINE	RIGHT KIDNEY	LEFT KIDNEY
Amount,	38 Ccm.	29 Ccm.
Δ	—1.08° C	—1.28° C.
Sugar (appeared after 33 min.)	0.8%	(appeared after 18 min.) 2%
N.	0.45%	0.544%
	Albumin	No albumin
	Pus Cells	

PYELONEPHRITIS; BOTH KIDNEYS.

MAN WITH SYMPTOMS OF CYSTITIS.

URINE	RIGHT KIDNEY	LEFT KIDNEY
Amount,	40 Ccm.	36 Ccm.
Δ	—1.12° C	—1.10° C.
Sugar	1.4%	1.3%
N.	0.427%	0.483%
	Albumin	Albumin
	Hyaline Casts	Casts
	Pus Cells	Pus Cells

Casper and Richter emphasize the importance of the determination of renal function by urinary cryoscopy, phloridzin glycosuria and urea estimation in all cases, and express the utmost confidence in the conclusion based upon these premises, and Kuemmell has established a rule that in nephrectomy, a lowering of the freezing point of blood below —.58° C.,or an increase of the freezing point of the urine (from the opposite kidney) above —.8° C., precludes such procedure. In support of this position Casper reported, in 1901, twelve cases, two of which showed renal insufficiency contraindicating nephrectomy and subsequently proven at necropsy; in the other ten, operation was performed, each resulting in cure. Kuemmell adds further support by twenty-four cases of nephrectomy, in which the absence of renal insufficiency had been previously established, with recovery in all but two cases. Death in these two was not due to uremia.

The mortality of nephrectomy is due primarily to renal insufficiency; secondarily to the common causes of death subsequent to major operations, and is given in Tuffier's tabulated collection (1899) of 366 nephrectomies as 36.1 per cent.; by Morris (1900) in his 78 cases as 21.8 per cent. The lowering of this mortality is promised only in the elimination of the most potent causative factor, renal insufficiency; and this is proven in the 34 cases of Casper and Kuemmell, in which renal insufficiency was excluded, with a resulting death rate of only 5.8 per cent.

As in all branches of medicine, it is necessary to a full understanding of many conditions and many cases to make use of at least the common diagnostic methods, so in others it is necessary to employ one and every method. In the bilateral renal diseases the application of the tests of renal function has not, up to the present stage of investigation, been fruitful of much information leading to the solution of clinical problems, but in the surgical affections, when operative attack is suggested, they have proven their value as determining more accurately than heretofore the indications and contraindications. Operations upon the kidney, particularly nephrectomy, dependent, as they are, on the presence of a second normally functionating kidney (except for injury or malignant disease) can not be justified in modern surgery without the application of every means for the determination of renal function. And since the treatment of many surgical diseases of the kidneys by instillations and irrigations of the renal pelvis offers relief to many cases which would succumb to operation, the application of these methods for the diagnosis of renal insufficiency or newer and better ones, must serve not alone as guide to the intelligent treatment of surgical diseases of the kidneys, but as the most potent means for the lowering of the mortarity in renal surgery.

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TREATMENT OF CROUPOUS PNEUMONIA.*

By Ed. E. Maxey, M. D.

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Pneumonia being one of the self-limited diseases, it is questionable just how much its course may be benefited or influenced by treatment. The clinical experience of various observers is not uniform. Then, too, the mortality rate is influenced by so many conditions, as well as by the personal history of each individual case, to such an extent that it has been almost impossible to determine with any degree of accuracy whether or not any particular line of treatment has really lowered the frightfully high mortality rate of pneumonia.

It will hardly be expected of me, therefore, to point out the best or only treatment for this disease, but as our most practical knowledge of applied therapeutics should naturally come from the general practitioner, I shall endeavor to outline, as briefly as possible, the modern or present methods of treating pneumonia, as summarized from recent literature, with the expectation that those present will criticise, add to, or take from, as suggested by their personal experiences. The man who cures his cases of pneumonia should have something to say about his methods, that others may benefit thereby, and those who have troubles should tell us about them.

I have found it more convenient to study my subject under the following five subdivisions: Prophylactic, hygienic, local, symptomatic and specific.

Prophylactic Treatment.—N. S. Davis, jr.,[1] says: "Physicians have never known so much of the nature of pneumonia or used remedial agents more intelligently than now. It is not their fault that the mortality of the disease is increasing. But is the medical profession altogether free from blame for its prevalence? Prophylactic measures have not been enforced as they should have been. It is well known that the cause of pneumonia is a micro-organism in the sputa of those suffering from the disease, and that the malady is engendered by inhaling it. Therefore, the same care should be taken to collect and destroy the sputa that is taken in pulmonary tuberculosis. It is not, however, a sufficient precaution to exercise this care during a patient's brief sickness, because the diplococcus of pneumonia is known sometimes to live and multiply for months and even years, in the mouth, pharynx and nose of those who have had the disease. Therefore, during convalescence, and for at least two or three weeks thereafter, expectoration, if it occurs, should be into a sputum cup containing an antiseptic and water. Moreover, the patient's mouth should be rinsed several times daily with an antiseptic mouth wash. During the illness the greatest pains should be taken to prevent soiling bed clothing, carpets or furniture with the sputa. After the illness the patient's room should be carefully cleaned and ventilated. The enforcement of such measures will help to lessen the spread of this disease and will greatly lessen the frequency of occurrence in those who have had it.

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*Read before the South Idaho District Medical Society, Boise, Idaho, April 9, 1903.

The fact that house epidemics are not infrequent and that the disease prevails as other contagious and highly infectious ones do in the winter season, when people are most crowded together and live most of the time in badly ventilated apartments, suggests another prophylactic measure, which the public should be taught to apply, namely, through ventilation of houses, offices, factories, theaters, churches, cars and other public places, in order that the air which must be breathed may be kept clean and free from ininfectious matter.

Laymen sould be taught not to be afraid of a patient who has pneumonia, influenza or tuberculosis, but to be afraid of lack of cleanliness about him during his illness, of failure to enforce prophylactic measures and, of close, badly ventilated apartments during the season when these diseases prevail."

S. S. Burt[2] suggests in view of the prevalence and fatality of pneumonia and the absence of a specific remedy, that the efforts of the medical profession and the public should be devoted to its prevention by sanitary measures such as temperate living, care as to food and drink, better ventilation of houses and especially places of public assembly, better street cleaning, the careful disinfection or destruction of pneumonic sputum, and the avoidance of spitting upon the sidewalks.

It is evident, therefore, that the question of prevention is an extremely important one, and precautions that would seem to be exaggerated will have to be considered to prevent the spread of this disease. Twenty-five years ago the suggestion that tuberculous sputum carried infection would have been laughed at. The laity must likewise be educated concerning the dangers from pneumonic sputum.

The question of dust and its dangers, especially in dry climates like our own, and in cities and places of public gathering, will have to be studied seriously by city and local boards of health and means provided for the suppression of this menace to health. All these prophylactic measures must emanate from and, in a great measure, be carried out by the medical profession. It is our duty to do this, and, often, without fee or other reward, other than one's personal gratification in the knowledge of a duty done.

Hygienic Treatment.—Rest, fresh air and appropriate nourishment are, in my opinion, of the very first importance in the treatment of a case of pneumonia. Put your patient into a large, airy room with free ventilation, avoiding drafts of air, in a comfortable bed, with ample protection for the chest, and give him an abundance of liquid nourishment, and you will not only contribute much to his bodily and mental comfort, but you will reduce to the minimum, dangers of complications and, incidentally, enhance that patient's chances of recovery. A point on which particular stress is laid by Ingals is the avoidance of too frequent examination of the patient. Nothing is gained by daily examinations. The disease is going to go right on to the crisis just the same, and the disturbing of his rest and the worry and annoyance incident to the daily thumping and auscultation of his chest is to be deprecated.

In regard to food, milk is generally recommended, but beef juice, beef tea, mutton broth, clam broth, chicken broth or oyster soup all possess more or less nourishment and any of them may be substituted for milk a part of the time, to prevent the patient from becoming tired of the milk. As a rule, where it can be borne, half a pint of milk, or its equivalent, should be given to an adult every three hours. If given oftener the stomach is kept in a constant ferment, with no time for rest, so that soon the appetite is lost or nausea and vomiting occur, or the food passes into the bowels undigested and there undergoes decomposition, causing tympanites and possibly diarrhea. When milk is not digested by the stomach, it should be tried in a partly digested form, and should the stomach reject all forms of nourishment, then high rectal enemas of four to six ounces of a partly digested and easily assimilated nutriment should be given, not oftener than three times a day. For, if given oftener, the rectum soon refuses to retain them (Ingals).

Local Treatment.—There is yet considerable difference of opinion regarding the local treatment of pneumonia. In the very early stage of the disease, leeches, cupping, and counter-irritants, in some cases, will relieve the pain and, in a few cases, may possibly abort the disease. They may likewise be of service in the last stages by hastening resolution. However, most, if not all of these methods are deprecated by a large class of physicians, and venesection is very rarely used at this time. Poultices, or any other local application requiring frequent changing, should be discarded as not only useless but really harmful, on account of disturbing the patient's rest. Ingals[3] says that in lieu of poultices, many physicians have, within the last few years, employed soft, puttylike preparations, which are spread on the chest to a depth of one-eighth to one-fourth of an inch and covered with a cloth. They are said to have effects similar to poultices in relieving pain, and it is claimed that they also have some influence in checking the progress of the disease. He claims, however, that in the great majority of cases he has found the oiled silk and cotton jacket much more serviceable than the poultice or any of its substitutes. This jacket keeps the chest moist and warm, and, if properly made, it can be easily removed for sponging or for examination. This jacket should be made in two parts, lapping several inches at the shoulders and sides, where it is held together by safety-pins. It should have a layer of cheesecloth next to the skin, just outside of this a layer of oiled silk, then comes a layer of absorbent cotton about two inches thick, and this is covered with another layer of cheesecloth and the whole quilted together to prevent shifting of the parts. Ingals claims that in his hospital experience the death rate was some five per cent. less when such protection was used as compared with similar cases where no such protection was employed.

Symptomatic Treatment--Pain.—If counter-irritants are used early and fail to relieve the pain, heat should be tried by means of hot-water bag, and if this does not give relief, cold, by means of ice-bag or Leiter coil, may be tried. Phenacetin in five or ten-grain doses may be given at infrequent intervals, provided there is no indication of heart failure. In probably fifty per cent. of the cases, however, it will be found necessary to resort to the use of an opiate, however, codein or heroin. Oertel recommends the inhalation of chloroform for the pain and shortness of breath.

Cough.—Ingals advises the administration of ammonium bromide in ten-grain doses every two to four hours, combined with hyosciamus in moderate doses. A combination of atropin and hyosciamus is often found beneficial, but quite often it will be found necessary to give some form of opium to control the cough. I very frequently prescribe a combination of heroin or codein and ammoniated glycyrrhizin with gratifying results. I have also found whisky to be a cough sedative.

Fever.—A temperature below 103° F. needs no treatment. Higher temperatures should be treated by sponging every two to four hours. In hospital practice the tub bath and cold packs are not infrequently resorted to. Cold applications to the abdomen by the ice bag or Leiter coil are also frequently beneficial in reducing fever. Only as a last resort, when the temperature persists in remaining high and the heart shows no indication of weakness, should phenacetin (5 grains) or acetanilid (3 grains) be resorted to. The alkaline diuretics and diaphoretics may often be of service.

Insomnia and Restlessness.—If the remedies already mentioned for treatment of pain, fever and cough do not control the insomnia and nervousness, whisky, chloral-amid, sulphanol, trianol or some additional opiate may be tried, in order named.

Heart Stimulants.—In the pneumonia of drunkards, and where there is the slightent tendency to cardiac weakness, whiskey or brandy is indicated, at first in half ounce doses every three or four hours, the dose to be increased and continued as the urgency of the case indicates. Should the alcoholic stimulants fail, then strychnia, must be used in addition, in doses and frequency to meet the needs of the case. For sudden heart failure the hypodermic injection of ether is recommended, or digitalis may be combined with strychnia or given alone. In severe cases of pneumonia or where there is extreme weakness of heart and depression of respiratory forces, Anders recommends the exhibition of the tincture of digitalis in doses of five to fifteen minutes, every three hours hypodermically. The hypodermic use of the normal saline solution is also often found of marked benefit. However, except in extreme cases, I prefer to use the salt solution by means of high rectal enemas.

Specific Treatment—There is yet great diversity of opinions on the question of specific remedies in the treatment of insomnia. Andrew H. Smith[4] says: "We may reasonably expect benefit in a considerable proportion of cases from the use of means addressed directly to the germ present in the lungs. The practical question to be solved is, what agent will act most powerfully on the specific organization with least inconvenience or danger to the patient." The salicylates, creosote, chloroform, digitalis, quinine and anti-pneumonic serum, each have their champions claiming specific action.

Salicylates—Siegel reports seventy-two consecutive cases, many of them most unpromising, treated with sodium salicylates, with no deaths. Ingals says that "this is a very remarkable record and certainly recommends the treatment most strongly for further trial," and adds that, "apart from the experience of Siegel, it does not appear unlikely that a drug which is capable of producing such decided results in acute rheumatism should be effective against an organism so sensitive as the pneumococus." Siegel gave two drams daily with no unpleasant symptoms except buzzing in the ears. He claims that the disease was not more than half the usual duration, and that crisis did not occur in any case, the temperature gradually declining from the end of the first day until the third or fourth day, when convalescence was established. Microscopical examination of the sputa showed a constantly diminishing number of diplococci until they were found to have entirely disappeared with the beginning of convalescence. Other observers report results almost as favorable.

Creosote—Van Zandt[5] claims that a large percentage of pneumonias are cut short or aborted; that almost all of the rest are mitigated, and the remainder, or a very small percentage are not affected by creosote. He gives seven and one-half grains of the carbonate of creosote every three hours, in urgent cases giving the dose more frequently for a few times, and thinks that this remedy, in pulmonary affections, is one of the greatest life saving discoveries of the 19th century.

Kerr[6], Robinson[7], and others advocate the specific action of creosote in the treatment of pneumonia.

On the other hand, neither Anders[8] nor Nothnagel[9] even comments on the use of creosote in the treatment of pneumonia.

Chloroform—Quoting from Ingals' paper[3], "Oertel[10], in 1882, reported decided benefits from the inhalation of chloroform, which he employed mainly in the advanced stages of the disease, about the fifth or sixth day, where there was extensive hepatization with pleuritis which rendered the breathing irregular, frequent and superficial and when the expectoration was scanty and viscid and there were coarse rales over a large area of the lungs, with rapidly increasing cyanosis. The inhalations were repeated as often as five or six times and pushed to commencing narcosis, with most satisfactory results. The respirations became deeper, the pain was relieved, the rales were diminished, expectoration increased, cyanosis became less marked and general betterment ensued. Oertel sums up his experience in the following words: I consider the inhalation of chloroform, when the above indications are present, as a means of treatment in pneumonia that would be difficult to replace by any other."

Digitalis.—Petresco highly extolls enormous doses of digitalis. He gives from three to fifty drams of an infusion of the leaves daily, and reports that out of several hundred cases among soldiers he has had a death rate of only 1.2 to 2.6 per cent with the crisis commonly occurring on the third day. Nothnagel states, however, in commenting on Petresco's cases, that it must be remembered that these cases were treated in a central military hospital: and further, that to attain such results it is by no means necessary to employ digitalis as a treatment, for in his own mortality statistics he had, in 379 cases of pneumonia in ages ranging from five to twenty, eleven deaths, or a 2.64 per cent death rate. These cases were all taken from the civil population and many were moribund when sent to the hospital. Even more conspicuous are the figures given by Risell. He reports 127 pneumonias in persons in the second and third decenium of life with only two deaths, or a mortality of 1.8 per cent.

Quinine.—Nothnagel[9] says that quinine, when properly used—that is in accordance with all the symptomatic indications, which in pneumonia are quite numerous—is the most suitable remedy, and that the value of quinine in the treatment of this disease is due less to its antipyritic action than to its specific action on the causes of the disease or their products. According to this author, pallor, marked decubitus, conspicuous weakness, slight apathy, with slight fever, are indications for the use of stimulants; and if in such cases mild delirium is added, the pulse becomes weak, small and frequent, and the disease is at its height, that is to say, on the fifth or sixth day, in some severe cases even earlier, then the hypodermic use of quinine hydrochlorate is strongly advised. He injects seven and one-half grains in half ounce of water once daily for two days. In two years' experience he was but twice required to resort to three injections and both these cases recovered. For fifteen years prior to beginning the use of quinine he treated 1461 cases, with an average mortality of 17.4 per cent. From 1895 to 1897 he treated 121 cases with quinine hypodermically with a mortality of only 7.4 per cent.

Serum Treatment.—Goldsborough[11] reviews the cases of pneumonia treated by anti-pneumonic and anti-diptheric sera reported in the literature. Four hundred and forty-seven cases were treated with a percentage of deaths of 15.7, which, when compared with the average hospital death rates of 25 to 35 per cent, as determined by Osler, would appear to justify or even as Goldsborough expresses it, to almost make it obligatory upon the hospital physician to employ it in conjunction with hygienic and symptomatic treatment. Sixty-one cases were treated with anti-diphtheric serum with nine deaths, or slightly less than 15 per cent. The most noticeable effect of the serum is the marked cessation of cough and expectoration.

Nammack[12] says that, in his practice at Bellevue Hospital, he has never been able to convince himself that the serum treatment had any value, and many other clinicians who have employed the serum are skeptical as to its therapeutic efficiency. However, there seems to be little doubt but that the Klemperer brothers have demonstrated that anti-streptococcus serum has a certain protective power in rendering animals, and, to a more limited degree, humans immune to pneumonia.

General Conclusions.—This is not, as you will perceive, a paper pregnant with original ideas. I have endeavored rather to present a review of some of the recent literature on this subject. In several instances I have thought it advisable to quote more or less extensively from various authors, believing their words to be better than mine.

My studies on the treatment of pneumonia lead me to make the following conclusions:

1. Pneumonia is a self-limited disease and is practically uninfluenced by treatment.

2. There is a wide range of deviation or variation in the mortality rate in different years, seasons and locations, and in different classes of people of the same age and environments.

3. The laity must be educated as to the dangers and methods of contracting pneumonia, and how to avoid it.

4. Rest, fresh air, appropriate nourishment, with ample protection for the chest are of first importance in the treatment of a case of pneumonia.

5. No method of treatment has yet been recommended that can be accepted as a specific remedy.

6. Serum therapy would seem to hold out the most promise of giving us a specific treatment for pneumonia.

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CLINICAL NOTES

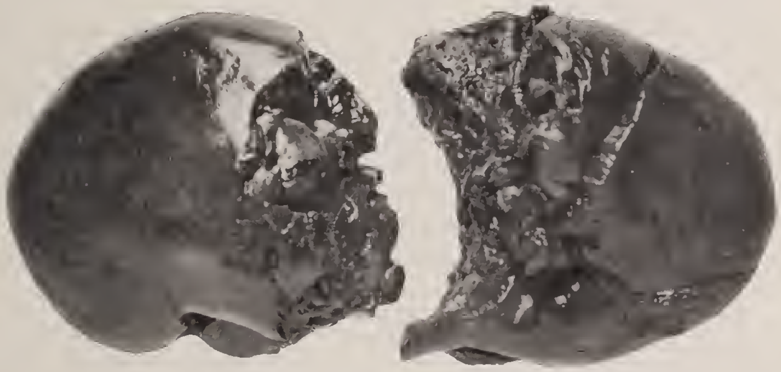
COMPLETE RUPTURE OF KIDNEY; NEPHRECTOMY; DEATH FROM SUPPRESSION OF URINE.

By Clarence A. Smith, M. D.,

SEATTLE, WASH.

P. Y., age 36 years, height 5 feet 9 inches, weight 175 pounds, robust and muscular.

At about 11 a. m., while at work in the hold of the battleship Wisconsin, he fell a distance of four feet, his body striking, in the region of the right kidney, across a piece of timber. He rose, tried to walk and fell down, complaining of great pain in the right lumbar region. Dr. L. C. Neville saw him in a short time and administered a hypodermic of morphine and sent him to the hospital. Before 2:30 p. m., when seen by the writer, he twice emptied the bladder full of blood and it was once evacuated by catheter.



RUPTURED KIDNEY.

Photo by A. C. Warner.

Physical examination showed pulse 120, small and weak; temperature normal; anxious expression of face. On percussion there was flatness in the right lumbar region, from the ribs to pelvis and nearly across to the umbilicus. Elsewhere tympanitic. In this region was also tenderness on palpation and bulging was observed. There was no abrasion of the skin, discoloration, broken ribs or any external sign of injury.

Diagnosis, probable rupture of the kidney with consequent hemorrhage into the bladder.

Immediate operation was performed. A median incision revealed a distended bladder which was evacuated by catheter, the contents being chiefly blood. Patches of hemorrhage were seen in the omentum and mesentery, below the liver. A large, retroperitoneal tumor was felt in this region. The incision was closed and another made downward from the tip of the twelfth rib, the patient being on the left side. A large cavity was opened, extending from the liver to the pelvis, limited internally by peritoneum and externally by muscles. After removing the clots and blood, the kidney was found completely divided into two part of about equal size. The lower segment was brought to view, denuded of capsule, the upper edge jagged and bleeding. It was excised after tying the pedicle and the other section treated likewise. The cavity was closed with gauze drainage.

The upper segment measured 2¾x2⅜x1½ inches and weighed 3 oz. and 1 dr.; the lower was 2½x2⅜x1½ inches, weighing 2 oz. and 3½ dr. Most of the pelvis was in the lower fragment. The vessels were not readily distinguished on account of being cut so close.

The patient was stimulated freely with saline enemata and hypodermics. He was given an abundance of water, diuretics and divided doses of calomel during the following three days. On the first day he passed eight ounces of bloody urine; the second day it diminished to three ounces; during the third he passed none, but one ounce was obtained by catheter. He died on the morning of the fourth day. There were at no time uremic symptoms and he was conscious till within a half hour of his death.

The temperature rose to 101.6° on the second day and was 102.2° shortly before death. The pulse was below 115 till the last day.

The autopsy showed a normal peritoneal cavity except for small hemorrhages about the site of the right kidney. A single renal artery was grasped by the lower ligature; veins were in each; there was a ureter in each which united an inch below the kidney. The left kidney presented a normal appearance with the exception of marked congestion on section. Microscopically many of the tubules were filled with blood. Otherwise the organ was normal.

The interesting point of the injury is a complete rupture of the kidney without visible signs of violence.

Death was clearly due to urinary suppression, though without the usual signs of uremia. It is impossible to divide the responsibility for this result between the injury to the kidney and loss of the organ. The authorities cite like results following each condition.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D., Editor in Chief.
JAMES B. EAGLESON, M. D. Managing Editor.

Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. JULY, 1903. NO. 7

SUPERFLUOUS MEDICAL SCHOOLS.

In his address at the recent meeting of the American Medical Association President Billings dwelt at length on the excessive increase of medical schools, students and practitioners, especially marked during the last two decades. While the facts presented have long been known to all observers, their emphasis is timely. His clear presentation of the demands of scientific medicine of today and the requirements of modern medical education justify the statement that the proprietary medical school is doomed, conducted solely as a money-making institution and for the glorification of its promoters.

This discussion should be carefully noted by the profession of the rapidly growing states of the Northwest, in which the medical school evil has scarcely a foothold. If the example of other sections of the country were to be followed, the establishment and multiplication of such institutions could ere long be anticipated. To protest against such realization we wish to express our views at this time. The legitimate necessities of the Pacific Coast for medical education could undoubtedly be satisfied with one, or at most two, strong medical institutions. The quality of learning imparted could thereby be raised to the highest order and the welfare of the profession would be conserved. As it is much easier to extinguish a flame than to control a conflagration, so the profession of today can accomplish the best results in this line by preventing the establishment of such objectionable institutions.

The modern, scientific medical school calls for such an immense outlay for equipment and maintenance that it is only under the most favorable circumstances that a new one can be ventured, with the expectation of comparing favorably with the recognized standard of excellence.

It is to be recalled that a few years ago, when the University of Washington enlarged its scope of work and broadened its courses of teaching, it was proposed by the Board of Regents to establish a department of medicine. One of the board, a physician of years of practice, had the hardihood to express himself in print to the effect that the requirements for starting a medical school were met in the appointment of the professors and securing rooms for their lectures. It stands to the credit of the local profession that their united opposition averted the threatened disaster to medical education in the Northwest, for anyone conversant with the situation appreciated the hopelessness of securing adequate state funds for such an institution had there been presented the slightest excuse for its existence.

Periodically the agitation is revived in some part of the Northwest. The only ostensible reason for it is that "we ought to have one in this section, as in other parts of the country." It should be remembered that the history of a very large number of these schools shows their foundation to have been laid in personal jealousies or hopes for individual aggrandizement. These sentiments do not foster the interests of scientific medicine nor favor the improvement of the medical profession.

We would entreat a very careful consideration of all phases of the question of medical education on the part of any physicians who may hereafter contemplate launching a medical school in the Northwest. We are confident that discerning minds will recognize the imperative demand to abstain from such action.

THE PASSING OF A MEDICAL JOURNAL.

We sincerely regret the suspension of publication on the part of the *Philadelphia Medical Journal*. While its name may survive in connection with another, this does not represent its own well-established personality. All readers of medical literature have recognized this as an exponent of what is best in scientific medicine and a supporter of ethical journalism.

The editor's open letter, detailing the facts of the journal's recent history, is a complete justification for its obsequies. It presents in a striking manner the difficulties and perplexities attending the editorial management of a journal, owned by laymen whose interests naturally have a commercial bias. It the prime purpose of a journal is to make as much money as possible no consideration need be had for the character or quality of its scientific or literary publications. The entire separation of the latter from commercial contributions may result in a lessened income; but if this most desirable quality of journal is to be maintained, such a result must be accepted.

The discerning readers will appreciate a medical publication devoted to the advancement and enlightment of the profession, as has been the case with this one. The New York publication is to be congratulated on receiving so worthy an inheritance.

THE COUNTY MEDICAL SOCIETIES.

As the time approaches for the annual meeting of the Washington State Medical Association the query naturally arises as to the success thus far attending the reorganization, adopted at the last meeting, in accordance with the plan outlined by the American Medical Association. The results attained will be indicated by the membership gathered into the State Association. Since eligible members are now confined to those in good standing in the county societies, the latter comprise the privotal points for the larger society.

We are aware that a considerable number of county societies have adopted new constitutions that bring them in line with the existing plan of organization. At the same time the total number of county societies is relatively small; so that many practitioners have no available means for membership in the State Association.

We wish to urge the formation of as many county societies as possible before the meeting of the State Association at Spokane next September. It should be the purpose of every eligible physician in the state to become a member of this representative body. What the American Medical Association represents to the great body of the profession in the whole country we would have our State Association stand for in our rapidly growing state. The future interests and welfare of the medical profession of the State of Washington can best be cared for by the existence of such a body of practitioners, whose influence can be felt and appreciated in whatever direction it may be exerted.

OBITUARY.

Dr. C. D. Parsons died at Moscow, Idaho, May 25, 1903, from fracture of the skull, caused by a fall from a horse while on a prospecting tour a week previously.

Dr. Parsons was born July 24th, 1855, and graduated from the University of Michigan in 1878, since which time he has been in the practice of medicine, and with the exception of one year before coming to Moscow, at the place of his birth, which was Burr Oak, Michigan. Previous to his entering the University of Michigan he attended Hillside College, Michigan. He was married January 16, 1884, to Miss Carrie Weaver, who, with two sons and a daughter, survive him.

Although he had practiced but a short time in Moscow, no man more fully enjoyed the confidence and esteem of the community. He was recognized as a high-minded, cultured gentleman, well qualified for his professional work. He was active as secretary of the recently organized Northern Idaho District Medical Society.

Dr. Frank H. McNeel died July 1, 1903, in Seattle, at the age of 47, of epithelioma of the lip.

He was born in Pennsylvania and moved west with his parents in 1857, his boyhood being spent in Kilbourne City, Wis. He studied medicine in New York and Chicago, graduating from Rush Medical College in 1881.

He practiced medicine in Merrill, Wis., until 1895, when he moved to California, practicing there till 1900, the time of his settling in Seattle.

REPORTS OF SOCIETY MEETINGS.

MEDICAL ASSOCIATION OF MONTANA.

Annual meeting held at Helena, Mont., June 17 and 18, 1903.

The meeting was called to order at 2 o'clock p. m., June 17, 1903, by Dr. T. J. McKenzie, president of the association, who acted as chairman of the meeting and Dr. B. C. Brooke, secretary of said association, acted as secretary.

Whereupon, the meeting was opened with a prayer by the Rev. Dr. J. P. MacCarthy.

Whereupon, an address of welcome was delivered to the association by Mayor Frank J. Edwards, of Helena, which was responded to by the president of the association.

Whereupon, a roll call was then ordered taken and being had, the following members of the association were reported present:

Mary B. Atwater, Geo. H. Barbour, J. L. Belcher, Louis Bernheim. Ben C. Brooke, D. Campbell, C. M. Chambliss, A. C. Dogge, J. A. Donovan, I. Freund, K. O. Holden, L. E. Holmes, J. C. Hunter, T. H. Hanbidge, Rudolph Horsky, Geo. W. King, T. J. Murray, F. J. McKenzie, W. C. Riddell, J. A. Walker, Wm. Treacy, E. F. Conyngham and R. C. Monahan.

Applications for membership in the association were presented by the following named members of the medical profession of the state of Montana and duly recommended:

E. E. Doty, Red Lodge; T. D. Tuttle, Helena; John H. Dent, East Helena; Geo. McGrath, Hamilton; F. M. Hillyer, Helena; F. E. Buchen, Hamilton; L. H. Fligman, Helena; E. I. Bradley, Helena; J. E. Ragsdale, Belgarde; A. L. Ward, Boulder; W. W. Taylor, Butte; J. M. Scanland, Warm Springs; A. W. Corner, Butte; C. B. Miller, Helena; N. Salvail, Helena, and Geo. D. Craven, Drummond.

Whereupon, and upon motion duly made, seconded and carried, the applications for membership were referred to the judiciary committee to consider and report on such applications.

Whereupon, a recess was taken for fifteen minutes, at the end of which time, the association was again called to order and the judiciary committee to whom was referred the applications for membership, submitted their report, recommending the election of all the applicants.

Whereupon, and upon motion duly made, seconded and carried, the report of the committee was accepted and adopted. A vote was then taken which resulted in the election of all the applicants.

Whereupon, Dr. Louis Bernheim read a paper on SYPHILIS AND ITS TREATMENT.

Whereupon, Dr. John C. Schepps read a paper on MUSCULAR SPASM IN ORTHOPEDIC SURGERY.

Whereupon Dr. Scanland read a paper on the TREATMENT OF A SERIES OF MORPHINE AND ALCOHOLIC CASES.

Whereupon, it was moved, seconded and carried that the association adjourn until June 18, 9:30 a. m.

Morning Session, 9:30 a. m.

The association was called to order, same officers presiding as before.

Whereupon, a paper was read by Dr. John A. Donovan on the TREATMENT OF ABNORMAL TONSILS.

Whereupon, Dr. Geo. W. King read a paper on the USE OF THE X-RAY IN THE TREATMENT OF CANCER.

Whereupon, Dr. Rudolph Horsky read a paper entitled OBSERVATIONS IN THE TREATMENT OF RENAL AND CARDIAC DISEASES.

Whereupon, Dr. E. F. Conyngham read a paper on CHRONIC SPLENIC ANEMIA, and exhibited a case.

Whereupon the association adjourned until 2 o'clock p. m., June 18, 1093.

The meeting re-convened pursuant to adjournment, same officers presiding as before.

Whereupon, Dr. T. J. McKenzie gave a talk on legislative and other topics, relating to the practice of medicine.

Whereupon, a sub-committee on reorganization gave notice they were ready to report and after a few preliminary remarks by Dr. T. J. Murray, expounding the object of reorganizing the Medical Association of Montana, a report of the Committee together with the new constitution and by-laws were read by Dr. Freund, together with the report of the committee recommending their adoption. It was moved, seconded and carried that the report of the committee be adopted and that the new constitution and by-laws take effect and be operative as soon as the business of the old association be cleared up.

It was moved by Dr. Crutcher, duly seconded and carried, that the new officers elect and three other members of the association to be appointed by the president elect, shall constitute a committee to incorporate the association.

It was moved, seconded and carried that the president, treasurer and secretary of the old association audit the bills of the Medical Association of Montana and pay the same out of the funds in the treasury.

Whereupon, Dr. E. Crutcher read a paper entitled THE PENALTY OF GENIUS.

Whereupon, it was moved, seconded and carried that we proceed to business under the new constitution and by-laws and that the chair appoint a committee on nominations, constituted of one member from each County Medical Society from those present in the state.

Whereupon, the chair appointed T. J. Murray, Silver Bow county; C. M. Chambliss, Gallatin county; J. L. Belcher, Broadwater county; Ernest Crutcher, Cascade county; G. T. McCullough, Missoula; T. H. Hanbidge, Valley county; E. F. Conyngham, Granite county; J. M. Scanland, Deer Lodge; W. W. Ward, Jefferson county, and Wm. C. Riddell, Lewis and Clarke counties.

Whereupon, a recess was taken for fifteen minutes and at the end of which time the association was again called to order and the committee on nominations submitted their report, naming Drs. Louis

Bernheim, Butte; Donald Campbell, Butte, and R. D. Alton, Livingston, as nominees for president of the association.

Whereupon, a secret ballot was ordered taken and being had was found that Dr. Bernheim received the majority of all votes cast and was thereupon declared duly elected president of the association, for the ensuing year.

The committee recommended that the remaining names for president together with Drs. Barbour, Conyngham and Warren be the nominees for first, second and third vice-president.

Whereupon, a secret ballot was taken which resulted in the election of Dr. Campbell, first vice-president, Dr. Barbour, second vice-president and Dr. Conyngham, of Phillipsburg, third vice-president. Dr. B. C. Brooke, of Helena, was recommended by the committee as secretary of the association. There being no other nominees a motion was duly made and seconded that the chair cast the vote of the association for Dr. B. C. Brooke.

The committee recommended that the following be the nominees for the office of treasurer: Dr. I. D. Freund, Butte; Dr. Rhinehart, Billings, and Dr. Chappell, Billings. A ballot being ordered taken and being had, was found that Dr. Freund received a majority of all votes cast and was thereupon declared duly elected treasurer of the association.

The committee thereupon recommended as councillors of the association, Dr. T. J. Murray, Butte; Dr. G. T. McCullough, Missoula; Dr. T. J. McKenzie, Anaconda; Dr. E. Crutcher, Great Falls; Dr. C. F. Hopkins, Chinook; Dr. W. B. Kingsbury, Dillon; Dr. W .C. Riddell, Helena; Dr. A. D. McDonald, Kalispell; Dr. R. D. Alton, Livingston, and Dr. Chappell, Billings. A ballot being taken, they were duly elected as councillors of the association.

Whereupon, it was moved, seconded and carried that the association meet in Butte, Mont., the third Wednesday and Thursday of May, 1904.

Whereupon, Dr. Jno. A. Donovan introduced the following resolution:

Resolved, That the Medical Association of Montana approves the plan of examination of eyes and ears of all school children as recommended and practiced by Illinois State Board of Health and approved by American Medical Association and many other organizations. That we recommend said plan to our State Board of Health and Board of Education for their approval and action. That hereafter every child will be carefully examined by the teacher at least once a year and records made according to the prescribed simple forms printed for this purpose. That the parents of any child who is found defective in sight or hearing be notified, that said parents may act as they see fit.

Whereupon, Dr. E. Crutcher introduced a resolution thanking the citizens of Helena, members of the medical profession of the city, the press and the attorney general for their courtesies extended during the time the association was in session.

Whereupon, it was moved, seconded and carried that the association secure five hundred copies of the by-laws and constitution and send to each practitioner of medicine and surgery in the state of Montana a copy of the same.

Whereupon, it was moved, seconded and carried that the secretary furnish a summary of the proceedings of the meeting to The Journal of the American Medical Association.

Whereupon, the association adjourned.

KING COUNTY MEDICAL SOCIETY.

President, J. P. SWEENEY, M. D.; Secretary, CARL HOFFMAN, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of June 1, 1903, the President being in the chair. Twenty-eight members and five visitors were present.

Drs. W. C. Hastings, J. E. Harris and Harriette J. Clark were elected to membership.

A report was presented, through the Committee on Laboratory, of the work done in the laboratory for the month of May. The director's inventory of the laboratory contents was referred to the committee.

CLINICAL CASES.

Dr. H. C. Ostrom presented a patient with the following history:

P. D., age 43; native of Canada; occupation, painter.

Previous History—Measles and whooping cough when a child; dysentery five years old. Habits—Smokes to excess; does not drink. Says that he has always been strong and rugged.

Immediate Illness—On March 5 he fell from a ladder eighteen or twenty feet high, striking on the ulnar surface of right hand, producing a slight skin wound which he washed out with turpentine. It healed quickly, giving no trouble. About thirty-six hours after the injury he had sharp, shooting pain between wrist and elbow on inner side of forearm, which gradually increased in severity. Six days after injury he commenced having pain and tenderness in region of wound on hand, with tingling of fourth and fifth fingers. On ninth day after injury he had difficulty in closing hand and numbness of fourth and fifth fingers. The pains, especially in the region of the slight wound on ulnar surface of hand, steadily increased. He was first seen by Dr. Stith and myself May 4th. The slightest touch in region of the wound caused severe pain. There was an apparent nodule on the proximal side of the scar, which appeared to be the seat of pain. Under cocaine an incision was made down to the fascia, in hope of finding foreign body. None was discovered and the original scar did not appear to extend deeper than the skin. There was anesthesia over the fifth and inner side of the fourth finger, ulnar side of the hand and wrist, and extended up on the forearm. The patient had difficulty in closing the hand, especially the fourth and fifth fingers. Reflexes and station normal; Romberg's symptom absent.

A week later it was discovered that the skin constituting the apparent nodule on hand was very sensitive to pressure between probes and still seemed to be the principal seat of pain. It was excised and for three days the patient was improved. A week ago he complained that for two nights he passed urine unconsciously in bed. At the same time I found by questioning, that the sexual appetite was absent. To-day he complained of his feet feeling cold, with sharp pain in both great toes, and that he could not judge height in stepping. He walks very uncertainty, with eyes closed. Anesthesia nearly complete is found in both legs. There is also a certain amount over left hand and forearm. There is no reaction of degeneration and response is obtained to both faradic and galvanic currents. He complains of difficulty in keeping track of the lines when reading. His hearing, which he says was good until recently, is becoming dulled. He cannot hear the watch on either side upon close contact. There is no specific history. He has been treated with salicylates, iodine, mercury, etc.

Dr Hoffman said he saw the patient a year ago, when he was strongly neurasthenic and melancholia was feared. At that time he had not the symptoms now described.

Dr. Sharples thought it was a plain case of hysteria, with perhaps malingering.

Dr. Lewis said he had known the man in Alaska three years ago. At that time he was very erratic and came under the attention of the police several times. He had considerable domestic troubles.

Dr. Eagleson presented a patient who had received extensive burns on the face, neck, body and arms last December, from a powder explosion. He consulted the doctor on account of extreme contraction of the chin to the chest by scar tissue, it being drawn to within one and a half inches of the sternum. He was now presented to show the good result of operation. The whole cicatrix was dissected out, down to the muscles, releasing the chin. It was covered with rubber tissue till granulations arose. Then a skin graft of epidermis was applied.

PATHOLOGICAL SPECIMENS.

Dr. Horton exhibited a STONE FROM THE BLADDER weighing 1,000 grains, which he had removed from a nineteen year old boy. Three years ago an operation had been performed on the kidney by an eastern surgeon, according to whose direction a sinus had been maintained by the aid of a tube. Dr. Horton had given an anesthetic to close this, and at the same time had explored the bladder, finding a stone present. The patient claimed to have passed a calculus by the urethra six years ago. He had pain while lying on the back, and other symptons of late. The stone was removed by a suprapubic incision.

The two papers of the evening were on TUBERCULOSIS OF THE KIDNEY. The first was read by Dr. Sharples, SYMPTOMS AND DIAGNOSIS; the second by Dr. Eagleson, PATHOLOGY AND TREATMENT.

DISCUSSION.

Dr. Smith said the most important feature was that of diagnosis, being the key to the whole situation. Given a patient with signs of sepsis, abundant pus in the urine, a marked tumor over one kidney with a tubercular history and the case is plain enough. But it is probably too far advanced for surgical interference being of benefit. No positive reliance can be placed on pain, as to location, nor pus in the urine. The only absolute symptom is the presence of tubercle bacillus and the knowledge that it comes only from one kidney. This is by no means easy to ascertain, on account of confusion with the smegma bacillus. This may be present in the urine obtained by the catheter, as well as that passed voluntarily. Urinary segregators are valueless in this condition both on account of the uncertainty as to where the arms of the instrument are situated and because of the impossibility of absolutely cleaning the bladder before its use, so that the smegma or tubercle bacillus may remain and appear on either side. Only by catheterizing the ureters can we be sure that the bacillus which is present comes from one or the other kidney. The doctor related a case of his own, where the right kidney was supposed to be tubercular. A bacillus was found in the centrifugated urine passed voluntarily, obtained by catheter and by the Harris segregator. It nas not decolorized by 95 per cent. alcohol. Its morphology was identical with the tubercle bacillus. After nephrectomy sections of the kidney disclosed normal tissue from all parts of the organ. The conclusion was that the bacillus found was the smegma. The later authorities claim that Pappenheim's or Grethe's tests, containing absolute alcohol, are reliable to decolorize the smegma bacillus. All other methods are unreliable and deceptive.

Dr. Heg corroborated the description of Dr. Smith's case in which the evidence seemed conclusive in favor of a tubercular kidney. He commented on the difficulty of excluding the smegma bacillus.

Dr. Winslow reported the following case, in which the diagnosis was made by aid of tuberculin.

The patient was a stout man of 48, a mason, who had been well up to the time of the present sickness, beginning nine years ago with pain in the small of the back, rather more on the left, and passage of bloody urine. His family history was good, except that one uncle and two aunts died of phthisis. The condition at the inception of the trouble was said to be nephritis. Since this time—nine years ago—the patient had been bothered with the pain in the back and, in consequence of weakness in the legs and shortness of breath had been unable to work for some nine months. Also had a good deal of flatulence and indigestion. The urine had been thick and cloudy for years, depositing a heavy sediment on standing. There had never been any bladder symptoms. The twenty-four-hour-urine measured two quarts and contained a large trace of albumen; no sugar; sediment of pus; occasional small, round and cordate cells; some free fat; a little blood and a few hyaline casts. The bladder was sounded for stone, with negative results. Repeated examinations of the urine for tubercle bacilli were also negative. Blood count showed 6,000 white and 24 per cent. of lymphocytes. X-ray examination showed the heart enlarged to the right and the chest presenting a cloudy appearance, due to edema or congestion of the lungs, but the patient was too stout to enable a satisfactory examination to be made of the kidneys for stone. Examination of the abdomen negative. Physical examination of the chest revealed some dullness over the lower back and sides and feeble respiration in these parts. Heart negative except for accentuated second sound. Tuberculin was injected to the amount of 5 mgm., but reaction was doubtful, the temperature rising to only 99° F., but caused the patient a bad night witn pain in the back, legs and arms. A week later 10 mgm. were injected and was followed with a good reaction, the temperature rising to 102 2-5°, with general pains and discomfort. Catheterization of the ureters was advised, but a consultant objected to it strenuously on the ground that it might excite trouble in the bladder and discouraged operation. The patient himself was also so discouraged by this view that he ended his life soon after by shooting himself in an empty freight car, where his lifeless body was found. Conservative advice in this case did not prove so in the end.

Dr. Peterkin said that Heitzman and others are attempting to locate the disease in certain parts of the kidney or ureter by recognition of the character of cells found, whether in the calices, tubules, etc.

Dr. Hawley gave the history of a patient with a tubercular family, who developed bladder symptoms last January. After examining many slides for the tubercle bacillus it was found in a few. Cystoscopic examination was unsatisfactory on account of contraction of the bladder, which also prevented catheterizing the ureters. But the urine from the right ureteral opening was observed to be cloudy, while that from the left was clear. On palpation the right kidney was felt larger than the left and sensitive to pressure. Nephrectomy was performed a week ago. The kidney was enlarged and thick at one end. Sections showed no characteristic tubercular deposits, but areas of beginning tubercular inflammation, small round cell infiltration and pus between the glomerulus and Bowman's capsule. Previous pain on right side has disappeared and she can retain urine longer than formerly.

As to the frequency of tubercular affection, Israel says autopsies are valueless because cases of the genito-urinary organs are all so far advanced. There is no proof that they may not have been primary. The smegma bacillus is very common. Sondern, of New York, found it present in 40 per cent. of 6,000 urinary examinations for tubercle bacillus.

In closing, Dr. Sharples said it is a question whether a kidney studded with miliary tubercles should be removed. When present there is probably secondary infection elsewhere. When giving little trouhle it may be better to leave the kidney and close the wound. He thought the use of tuberculin hazardous, as it may excite latent tuberculosis.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of June 15, 1903, the President being in the chair. Thirty-eight members and visitors were in attendance.

The names of Drs. H. M. Read and J. E. Stevens were proposed for membership.

The first paper of the evening was read by Dr. Stith, entitled THE VALUE OF BLOOD EXAMINATIONS. (To be published later.)

DISCUSSION.

Dr. Tripp thought the essayist had presented the subject in a thorough manner. Blood examinations are of value in typhoid and anemia, but have been a disappointment in appendicitis. Of recent years it has been easily accomplished on account of the stains used. He mentioned a case of secondary anemia with 25 per cent. of hemoglobin, in which there was an increase of 10 per cent. a week under proper treatment, until it reached 80 per cent. He thought it would be soon as important and common as examination of the urine. In some eastern hospitals an examination of the blood is made in every patient admitted.

Dr. Eagleson mentioned reading a paper on pneumonia, in which the writer described finding the pneumococcus in the blood of 77 out of 83 patients suffering from this disease.

Dr. Read said the examination of the blood is not given its proper value, too much being expected of it. It is of no value for the discovery of pus unless the latter is under pressure. The technic is the simplest thing imaginable, in contrast to the old and complicated methods. But care should be exercised in making the stain that absolute methyl alcohol is used.

Dr. Miles read the second paper, entitled, ECLAMPSIA. (To be published later.)

DISCUSSION.

On motion of Dr. Eagleson, Dr. Burns, formerly of Tacoma, was given the privilege of the floor and invited to participate in the discussion. Dr. Burns, after expressing his appreciation of the courtesy extended him, said that in fifteen years practice he had never had a case of eclampsia. Several years ago he observed several in an eastern hospital. Pilocapine was mostly used, and one patient died from effect on the lungs. He thought the action was on the central nervous system. The use of saline solution in large quantity is of value. He discussed the advisability of inducing abortion when albumen was discovered in the urine at an early stage of pregnancy.

Dr. Mitchell considered the paper comprehensive. He had been impressed with the variance given by the authorities, as to its occurrence, ranging from 1:500 to 1:1000. From the reports of a society in Philadelphia, one writer gives a frequency of 1:130, another 1:180. The doctor had had five cases in his practice. One occurred at five months, one at seven, two at parturition and one after birth of the child. Although albumen is usually found in the urine it is not always discovered. As to treatment little more need be said. Once he gave a patient one-sixtieth of a grain of pilocarpine with so great an exudation into the bronchial tubes that he will never do it again.

Dr. W. A. Shannon commented on the fact that the etiology is still in the dark. With reference to albuminuria early in pregnancy he did not think abortion should be induced till other means had been thoroughly tried to relieve it. He described a case in his practice some years ago where eclampsia occurred two weeks after the birth of the child, followed by the mother's death, no albumen having been found in the urine.

Dr. Eagleson mentioned a case which he attended several years ago, in which he found the uterus empty, the condition being one of extra-uterine pregnancy. The patient made a good recovery after a laparotomy.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. HOLT, M. D.; Secretary, F. J. VAN KIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in the library room of Odd Fellows Hall, on the evening of June 8, 1903, the President being in the chair. Seven members and two visitors were in attendance.

The program of the evening consisted of a paper on SCARLET FEVER, by Dr. A. MacRae Smith. The doctor handled the subject in an able manner and particularly dwelt upon the unusual course and complication which had characterized the disease under his care. General discussion followed.

The committee on program announced that a paper on same subject of general interest would be read by Dr. E. A. Hall, of Victoria, B. C., at our next meeting.

The meeting adjourned to meet the second Monday in July.

MULTNOMAH COUNTY MEDICAL SOCIETY.

President, E. N. CROCKETT, M. D.; Secretary, L. VICTORIA HAMPTON, M. D.

The adjourned meeting of Multnomah County Medical Society was held Monday evening, June 8, 1903, in the Marquam building, Portland, Ore., President E. N Crockett in the chair. The minutes of the last meeting were read and approved. Dr. J. S. Stolt then read a paper entitled THE LUMBRICOID OF THE TROPICS. A general discussion followed in which the doctor was complimented and thanked for bringing this subject before the society.

Dr. W. O. Manion then read a paper on ALCOHOLIC INSANITY, dwelling at length on the various phases of this dread enemy of the human race. After the discussion of this paper the society extended a vote of thanks to NORTHWEST MEDICINE and instructed the secretary to send a report of the meetings to the journal. The meeting then adjourned subject to the call of the president.

RECENT PROGRESS IN MEDICINE AND SURGERY.

OBSTETRICS AND GYNECOLOGY.

Edited by

P. W. Willis, M. D., Seattle.

W. A. Shannon, M. D., Seattle.

Gonorrheal Vulvovaginitis in Children. (By Woods, M. D. The American Journal of the Medical Sciences, Feb., 1903.) The writer calls attention to the great importance of careful diagnosis and treatment for vaginal discharge in children. He gives many authorities showing that the disease is gonorrheal in origin. Although believing the majority to be of a gonorrheal nature he gives the following classification as to causes:

Catarrhal, as from filth and exanthemata; traumatic, as from rape, masturbation and mechanical injury; infections, as from oxyurides, pathogenic and bacteria. He mentions as methods of contracting the disease, using infected towels, bathing basins, sheets, etc. He also refers to the possibilities of infection during birth.

The principal symptoms are a yellowish discharge from the vagina, with the vulva and vagina more or less swollen. There is often painful urination and also constitutional symptoms. Gonorrheal arthritis has been noted; the most dangerous complication, however, is peritonitis following infection of the uterus and its appendages. He believes with Sanger, whom he quotes, that many cases of unexplained pelvic disease in virgins date back to an infantile salpingitis that remains quiescent until puberty. He also agrees with Currier, whom he quotes as saying, "It seems probably that many of the deformed and undeveloped uteri with which are associated so much dysmenorrhea, etc., are the consequence of infantile vulvovaginitis."

Under treatment he makes special mention of cleanliness, proper hygiene, attention to the bowels, irrigation slowly through a rubber catheter, twice daily, with permanganate of potash, strength varying from 1 to 12,000 to 1 to 2,000. The external genitals and vagina are then cleansed and dusted with boric acid powder. He emphasizes the fact that great care should be used to prevent ophthalmia. He then gives the history of five cases; two of them he proves conclusively were gonorrheal, one uncertain, one negative, and there was one in which the examination was not complete. He insists on cultures in addition to the stained organism as being essential for positive proof of the gonorrheal nature of the disease. Willis.

THE PATHOLOGY THAT REMAINS AFTER THE NON-SURGICAL TREATMENT OF PERITONITIS. (By H. D. Niles, M. D., The Journal of the American Medical Association, April 18, 1903.) The writer concludes from his operating room observations that a pathological condition remains in the abdomen in the great majority of cases of peritonitis. He says in part:

"Ninety-five per cent. of all the survivors of the non-surgical treatment of peritonitis are left with infection without and adhesions within the peritoneal cavity. Well-known anatomic peculiarities of the gall-bladder, appendix and fallopian tubes favor the reception and imprisonment of infection from the alimentary canal and endometrium and its extension to the peritoneum. Consequently, it is about one of these organs that we usually find the pathology, unless it has been mechancially removed. The greatest amount of infection comes from a rupture of an appendiceal or tubal abscess, or a perforation of the stomach, an intestine, or the gall-bladder. The most virulent infection is either appendiceal or from a pyosalpinx, following a puerperal endometritis; the mildest is from a cholangitis, or a gonorrheal salpingitis.

"While it has been customary to point to these cases as sufficient proof of the efficiency of the drug treatment of peritonitis, I believe that all fair-minded, thoughtful observers are learning to regard the pathology these patients carry within their abdomens as responsible for much distress and many deaths that we all formerly attributed to other causes, or were unable to trace to any well-defined cause."

He believes that careful examination reveals symptoms of the pathologic condition over the gall-bladder, appendix, and fallopian tubes. He also makes the point that there is a certain low grade infection and consequent toxemia and a great variety of symptoms which are found in that condition. He intimates that if we use the term rheumatic peritonitis, we would be consistent in saying rheumatic gonorrhea instead of gonorrheal rheumatism.

He claims that post-operative adhesions are absorbed after the complete removal of primary infection, while the adhesions following non-operative treatment remain because the original source of infection remains. He mentions the fact that gastric and intestinal ulcers are likely to occur in these parts dragged on by adhesions, and, in turn, this may become the seat of malignant disease. All of which he uses as argument against non-surgical treatment of peritonitis. WILLIS.

X-RAY THERAPY.

Edited by

R. D. WILSON, M. D., Tacoma.

C. H. THOMSON, M. D., Seattle.

THE CURATIVE POWERS OF THE X-RAYS UPON LUPUS AND MALIGNANT GROWTHS WITH REPORTS ON CASES. (By T. J. Buchanan, M. D., Philadelphia Medical Journal, April 25th, 1903.)

Dr. Buchanan is at variance with most of the authorities on the use of the X-ray in that he claims it is not necessary, in order to obtain a cure, to produce a burn or cause any reaction whatever. He holds the light acts largely through disturbances of the trophic nerves supplying the blood vessels and skin and interfering with the blood supply of the neoplasm with subsequent atrophy. His whole plan of treatment is milder than that of the majority of operators, his cases being treated at longer intervals and with less radiation than is usually thought necessary. His conclusions are given as follows:

1. Superficial epithelioma, lupus, rodent ulcers, eczema and many kindred skin affections can positively in many cases be cured with the X-ray.
2. The growth of deep-rooted carcinomata can sometimes be retarded and the pain diminished by means of the X-ray, but it has not yet been demonstrated that these cases can be permanently cured.
3. A tube or medium high vacuum is better suited for X-ray therapy than one of low power, particularly for deep-roted carcinomata.
4. The part exposed should never be nearer the tube than 12 inches.
5. An exposure should never last longer than 5 to 10 minutes at one sitting.
6. An interval of three or four days should intervene between each sitting.
7. In order to obtain a cure it is neither necessary to produce a burn nor to cause any reaction whatever.
8. All cases of inoperable carcinomata, sarcomata, etc., should be treated with the X-ray before they are abandoned as hopeless.
9. The operator must become well skilled in the use of the X-ray apparatus.
10. After the suspension of treatment, carcinomata show a strong disposition to return quickly.

THOMSON.

RESULTS IN RADIOTHERAPY. (By H. R. Varney, M. D., Journal of the American Medical Association, June 6, 1903.)

Dr. Varney's paper deals with nearly every form of disease amenable to this form of treatment. With his cases of malignant new growths the percentage of clinical cures is low, but as many of these cases were hopelessly inoperable, the results must be considered favorable to this form of treatment. Of the deep-seated carcinomata he reports 17 cases treated, with 5 clinically cured, and of the latter 2 relapsed. Of this group 13 were of the breast, 1 uterine and vaginal, 1 intestinal and 2 rectal.

His conclusions in these cases are:

1. Generally a relief from pain.
2. Malignant conditions of the breast, pathologically the same, do not always react the same to the light.
3. Metastasis and toxemia may be caused by the light.

4. Apparently the light causes the cancer cells to degenerate, any obliterating endarteritis, over growth of the fibrous connective tissues and changes resembling active repair around the edges of the growth.

In epitheliomatous cases he reports 37 cases treated, with 12 clinical cures. Of this group 19 were of the rodent ulcer type; all males except 2, and ranging in age from 38 to 84. A large percentage occurred in the face and neck. In treating this class of cases he gave the longest exposures compatible with safety. He considers that mild treatments stimulate the growth and of itself, if long continued, will cause the disease.

In 13 cases of sarcoma there were no permanent cures. In each case there was temporary relief, the pain being diminished and the tumor at first reduced in size. In this group 7 were osteo-sarcomata; 6 lympho-sarcomata. Eleven were males; 2 females. The ages ranged from 18 to 68.

With 12 cases of lupus he obtained 10 clinical cures. Of this number 11 were lupus vulgaris and one lupus erythematosis; 5 of these cases were males, 7 females; ranging in age from 14 to74. Six were located in the cheeks; 2 in the ears and auditory canal; 1 each on the nose, temple and head. They had existed from one to twenty-one years. Of the cases discharged as permanently cured one relapsed. This case responded readily after a few additional treatments.

In acne, the indurated pustular form, he claims not only a freedom from scarring of the new lesions, but, if the treatment is carried to the production of an erythema and stiffing of the skin, the peeling that follows will aid in the removal of pits and scars from old lesions.

Favorable results are also reported in the following cases; Keloid, eczema, sycosis, small-pox, schleroderma, varicose ulcers, painful bone conditions, painful adhesions after laparotomies, tubercular glands and joints.

THOMSON.

NOVELTIES IN THE PHYSICAL TREATMENT OF SKIN DISEASES. (By L. Fruend, M. D., Philadelphia Medical Journal, May 9, 1903.)

The author described the results of some of his experiments with Roentgen Ray in epitheliona, lupus, favus and sycosis. He says that these diseases which where formerly considered almost incurable are now cured by new radio-therapeutic methods in an incredibly short time, without pain, and without causing patients the discomfort of bandages, dressings, or long sojourn in bed, necessitated by some of the earlier methods of treatment. Dermatologists have also taken precedence in other branches of physical therapy, as shown by the wonderful results of the water-bed, the Ehrmann cataphoresis, electrolysis and the therapeutic employment of high and low temperatures. The author has also discovered by experimentation, that the rays of sunlight of large wave length (heat waves) possess no bactericidal influence. On the other hand, they do exert a favorable influence in some skin affections, as acne vulgaris, leg ulcer, etc.

THOMSON.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

SURGICAL ASEPSIS. Especially adapted to operations in the home of the patient. (By Henry B. Palmer, M. D., Consulting Surgeon to the Central Maine General Hospital. Ninety Illustrations. Pages VI, 231. Size, large 12 mo. Extra cloth. Price $1.25 net, delivered. Philadelphia, F. A. Davis Company, Publishers, 1914-16 Cherry Street.)

This book not only covers the ground thoroughly, but the author shows a great deal of discretion in selecting the simplest and best methods. The contents include general considerations of aseptic wound treatment; pathogenic bacteria; sources of infection; means of sterilization; accessories for operation; gauze, sponges, ligatures, and sutures; drainage of wounds; preparation for operation by the nurse; organization for operation; peritoneal toilet; suture and dressing the wound; after-treatment, vaginal operations; armamentarium of the surgeon; infected wounds; constitutional disturbances due to wounds and their infections, and aseptic midwifery. The choice of aseptic appliances and methods is based on our most recent bacteriological and pathological knowledge, and on experimentation by the best men. The whole work is written in a simple, straightforward style and is a thoroughly scientific and practical exposition of the subject. We recommend the book thoroughly as a guide for the general practitioner.

BOOK ON THE PHYSICIAN HIMSELF AND THINGS THAT CONCERN HIS REPUTATION AND SUCCESS. The twentieth century edition, being the eleventh edition revised and enlarged. (By D. W. Cathell, M. D., and his son, William T. Cathell, A. M., M. D., pp. 404, 9½x6½ inches, 1902. F. A. Davis & Co., Philadephia, 1914-16 Cherry Street.)

This book may be regarded as the authoritative text book of medical conduct in the United States and has been so regarded for a great many years. It is filled from front to back with sagacious comments and advice about every detail of a physician's existence, and one is hardly properly prepared to follow his calling until he has stored his memory with Dr. Cathell's best sort of worldly wisdom. The work takes the place, in a much more complete manner, of James Jackson's Letters to a Young Physician, printed in the early fifties and familliar to the last generation. The present edition is considerably larger than that of one or two decades ago, but its value has increased with its size, which is not often the case with men or books. The portraits of the authors are to be seen on the frontispiece. WINSLOW.

THE EXPECTANT MOTHER. A Treatise on the care of the expectant mother during pregnancy and child-birth and the care of the child from birth to puberty. (By W. Lewis Howe, M. D. Pages VIII—63. Size, small 12mo. Extra cloth. Price 50 cents net, delivered. Philadelphia, F. A. Davis Company, Publishers, 1914-16 Cherry Street.)

The little volume with this euphonious title is a sensible work and tells the "expectant mother" what to expect and what to do, until she can secure a physician, when things happen that are not usually to be expected. It is one of the simplest and plainest of such treatises that we have seen, and their name is legion. Books of this kind are to be encouraged, when written in a scientific spirit as serving to educate the public in physiology and hygiene. We heartily recommend the little work and hope the expectant mother using it will get all she expects and nothing more.

WINSLOW.

"ANALYSIS OF THE SEXUAL IMPULSE—LOVE AND PAIN—THE SEXUAL IMPULSE IN WOMEN."—Third volume in series,—"STUDIES IN THE PSYCHOLOGY OF SEX." By Havelock Ellis, L. S. A. (England); Fellow of the Medico-legal Society of New York, and Anthropological Society of Berlin, Honorary fellow of the Chicago Academy of Medicine, etc.; general editor of the Contemporary Science series since 1899. Extra cloth $2.00 net, delivered. Sold only to physicians, lawyers, clergymen, advanced teachers, and scientists. Philadelphia, Pa. F. A. Davis Company, Publishers, 1914-16 Cherry Street.)

This may be a well-written book of its kind, but in our estimation it is a mighty poor kind. The work, which is only one of five comprising the study of sexual psychology, is certainly not lacking in completeness. From our point of view it is unnecessarily complete, considering, as it does, all the normal and abnormal modes of sexual congress from those of the hermaphrodite snail to the most perverted type of civilized man—or vice versa, according to which one regards at the top of the scale—and entering into details which must either excite disgust and revolt or give rise to sexual demoralization and perversion through suggestion.

It is true that the work is intended for "physicians, lawyers, clergymen (save the mark), teachers and scientists," but even in the hands of one of these selected characters a description, like the one described below, could not fail to work harm. This person is one of many under histories of what "may be considered ordinarily normal and healthy" types of sexual development and is a part of the book which the author thinks is of especial value. He is, we are disgusted to relate, called a "surgeon" who states shamelessly that at about the age of 17 or 18, not contented in committing sexual malpractices upon "dozens of girls in good, social position," studied medicine so as to enlarge the field of fiendish operations. After marrying a "beautiful girl" he, not long after, forsook his comparatively natural sexual relations with her to indulge in all sorts of unnatural (or as he describes it "fancy") practices with a male of his own loathsome sort and this continued till the latter's death, when the tale ends. The details are particularly revolting, and this is only a fair sample of the lot. The inclusion of such histories in what the writer considers one of the most valuable parts of his work—the histories of so-called NORMAL types of sexual development—is a sufficient commentary on the face of it to dispose of the author, book and the probable effect of such writing.

WINSLOW.

A TEXT BOOK OF CHEMISTRY. For Students of Medicine, Pharmacy and Dentistry. (By Edward Curtiss Hill, M. S., M. D., Medical Analyst and Microscopist; Professor of Chemistry and Metallurgy in the Colorado College of Dental Surgery; Professor of Chemistry and Toxicology in the Denver and Gross College of Medicine, University of Denver. With 78 illustrations, including nine full-page halftone colored plates. Pages XII-523 Crown Octavo. Extra cloth, $3.00, net delivered. Philadelphia, F. A. Davis Company, Publishers, 1914-16 Cherry Street.)

This work is very comprenensive in its scope. Every branch of physics and chemistry in relation to medical science is touched upon. Of necessity, therefore, the space devoted to each subject is limited in a volume of this size. As its title implies, it is essentially a text book for students, though the brevity of the introductory chapters suggests the author's belief that the student has at least a readimentary knowledge of elementary chemistry. Like most works of its kind, it lays all too little stress on physiological, pathological and clinical chemistry. Their importance is unemphasized. Of the newer subjects mention is made of Hemolysins, Bacteriolysins, and Aggultinations, but not of Ions and Electrons, of Cytodiagnosis, of the Albumosuria of pyogenic and enteric origin and Bence-Jones Albumosuria. The chapter on sanitary chemistry is excellent. The systematic arrangement which has been devised surpasses similar works on chemistry and this with the simple, concise and didatic manner in which it is written recommends it for the class-room and as a reference hand-book. HAWLEY.

REPORT OF CONTAGIOUS DIASEASES.

To the Washington State Board of Health for June, 1903.

COUNTIES.	Smallpox Cases.	Smallpox Deaths.	Scarlet Fever Cases.	Scarlet Fever Deaths.	Diphtheria Cases.	Diphtheria Deaths.	Typhoid Fever Cases.	Typhoid Fever Deaths.
Adams	..	..	..	..	2	1	..	..
Chelan	..	..	1	..	..	..	..	..
Chehalis	..	..	..	..	4	..	..	..
Clark	48	..	8	..	..	..	..	..
Columbia	1	..	..	..	..	..	..	..
Douglas	1	..	..	..	..	..	..	..
Garfield	..	..	1	1	..	..	..	..
King	8	..	14	..	6	..	2	1
Kitsap	1	..	..	..	..	..	..	..
Lincoln	..	..	..	..	1	..	1	..
Okanogan	1	..	..	..	..	..	..	..
San Juan	..	..	..	..	4	3	1	..
Snohomish	2	..	1	..	..	..	..	..
Spokane	3	..	7	..	4	2	..	..
Walla Walla	22	..	3	..	..	..	4	..
Whatcom	2	..	6	..	..	..	..	..
Yakima	..	..	11	..	..	..	..	..
Seattle (City)	14	..	70	2	7	1	..	..
Spokane (City)	7	..	14	..	..	..	..	..
Tacoma (City)	4	..	12	1	7	1	4	2
Total	114	..	148	4	35	8	11	3

While Clark county reports an increased number of smallpox cases this month, the situation is now well under control in that county. Walla Walla county reports a new outbreak. The three cases in Spokane county were all imported from without the State. The outbreak at Chesaw, Okanogan county, is now over and this county is free from smallpox.

Elmer E. Heg, Secretary.

MEDICAL SOCIETIES.

NAME.	MEETINGS HELD.
Washington State Medical Association President, Chas. McCutcheon, M. D.; Secretary A. H. Coe, M. D.	Sept. 1, 2, 3—Spokane
Chehalis County Society President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.	Second Tuesday—Aberdeen
King County Society President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.	First and Third Monday—Seattle
Pierce County Society President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.	Second and Fourth Tuesday—Tacoma
Skagit County Society President, F. B. West. M. D.; Secretary, C. C. Harbaugh, M. D.	
Snohomish County Society President, J. R. Hathaway, M. D.; Secretary, C. A. Mead, M. D.	First Thursday—Everett
Spokane County Society President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.	First Thursday—Spokane
Walla Walla County Society President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.	Second Wednesday—Walla Walla
Whatcom County Society President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.	Second Monday—Whatcom
Whitman County Society President, Wilson Johnston, M. D.; Secretary, H. B. Clough, M. D.	
Yakima County Society President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.	First Tuesday—North Yakima
Oregon State Medical Association President, H. W. Coe, M. D.; Secretary, A. D. Mackenzie, M. D.	September—Portland
City and County Medical Society of Portland President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.	First Wednesday—Portland
Multnomah County Medical Society President, E. M. Crockett, M. D., Secretary, L. Victoria Hampton, M .D.	First Tuesday—Portland
Montana State Medical Association President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.	May 18 and 19, 1904—Butte
Silver Bow Medical Society President, Donald Campbell, M. D.: Secretary, J. A. Donovan, M. D.	Second and Fourth Wednesdays—Butte
Idaho State Medical Association President, George Collister, M. D.; Secretary, E. E. Maxey, M. D.	Oct. 8 and 9—Boise
Northern Idaho District Medical Society President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.	June 9—Lewiston
Southern Idaho District Medical Society President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.	July—Hailey
British Columbia Medical Association President, O. M. Jones, M. D.; Secretary, C. J. Fagan, M. D.	September—Victoria
Vancouver Medical Society President, R. C. Boyle, M. D.; Secretary, J. S. Conklin, M. D.	Vancouver
New Westminster Medical Society	Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal.

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BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L.	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M.	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
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CROWL, MISS FLORENCE I.	Graduate Seattle General Hospital.
DAM, MRS. EVA L.	Graduate Seattle General Hospital.
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HUGHES, MISS M. A.	Graduate Dublin General Hospital.
HUBBS, MRS. F. H.	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E.	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
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LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B.	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W.	Graduate Royal Jubilee Hospital, Victoria.
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SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
SLATER, MISS MAME	Graduate Eastern Illinois Hospital.
SHIACH, MISS MARY	Graduate Seattle General Hospital.
STRAHL, MISS INEZ	Graduate Asbury Hospital, Minneapolis.
STRONACH, MISS MINNIE	Graduate Brompton Hospital, London.
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WANAMAKER, MISS NIDA	Graduate Seattle General Hospital.

NORTHWEST MEDICINE

August, 1903.

ORIGINAL CONTRIBUTIONS.

SOME CHARACTERISTICS OF THE HUMAN MIND.*

By J. B. Loughary, M. D.,

SEATTLE, WASH.

To attempt a detail description of so vast and so complicated a subject as psychology is entirely beyond my calling. My aim is simply to call attention, in a very abstract manner, to some of the many conflicting opinions which have been advanced from time to time; and to select the one which appeals to me as being the most rational theory for the study of that strange yet all powerful function—the human mind.

For centuries past there has been a diversity of opinion among philosophers in regard to the relationship existing between mind and matter. While the connection between them is not doubted so much at the present day, nevertheless the character of the relationship remains a matter of controversy.

On the one hand there are those who claim—and prominent among them is Lionel S. Bearde—that there exists a transcendental power as the agent upon which the composition, character and minute structure of all tissues and organs depend; that the mind is not derived from nor is it correlative with the natural forces of heat, light, electricity, etc. In other words, the brain is simply a tool or a medium through which the mind makes use in man to manifest itself. According to this view, there is in every being a mind not dependent upon the nervous system for its existence. This, you might say, is dualism pure and simple, a conception from which the scientific world has, for years past, been steadily departing. It has interfered with science in the past, and been unfruitful of healthy progress toward the future.

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*Read before the King County Medical Society, Seattle, Wn., April 20, 1903.

On the other hand, there are many—prominent among whom being Claude Bernard—who insist that the seemingly independent movements of protoplasm are caused by the compact of forces in the environment. There is an abundance of proofs which go to show that the mind is directly the result of nervous action, especially the brain, and that if there were no nervous substance there would be no mind. This view is that held by the majority of scientific writers of the present day.

As early as the year 1748 Prof. Hartley attempted to explain psychological phenomena by physiological principles. He said that in his opinion "Motion, force or mental power originating in the brain is the result of vibrations and oscillations, and so long as this movement was not interferred with, mental manifestations were produced normally; but if deranged in any way they became abnormal in character." Prof. Dercum of Philadelphia maintains, even at the present day, the same opinion as that of Hartley. Erasmus Darwin's theory is practically the same; he first connected the operation of intelligence and volition with the origin of all vital movements. Life and mind were treated by him as one and the same.

In the light of Spencerian philosophy mind is convertible into units of impressions, produced by a shock or a series of shocks, originating in protoplasm of the nerve cells; he also says that the unknowable manifests itself to us subjectively as consciousness and objectively as matter. Mind and matter, says Spencer, have a common substratum.

If what has been said is true, then monoism is the more rational doctrine of the two and is the one, it seems to me, that should be accepted as the more proper basis for psychological study and research.

So far as I have been able to determine, the majority of our more able philosophers agree in the following conclusions:

1st. That the redistribution of matter in general is accompanied by electrical disturbances.

2nd. That light, heat and electricity are emanated by undergoing changes in organic as well as inorganic matter.

3rd. That electricity is generated during the molecular vibrations which take place in the organism.

4th. That nerve force is habitually generated in all animals by incident forces of every kind.

If we accept the theory herein stated that energy originates from matter and that mind is the result of nervous action, then we must admit the fact that *mind* originates from all forms of gray matter, no matter how great or small. If this be true in man, so it must also be true in the brute creation who possess the same anatomical elements as that of man.

In the human species we have an organic structure in the form of brain, spinal cord, ganglia and nerve fibres, held together by nature's cement. It is divided and sub-divided into hemispheres, lobes and convolutions, separated by membranes and fissures, each having a function of its own whose development and activity is just in proportion to the physical and mental requirements.

Practically speaking we have in the animal creation the same anatomical formations as that of man, differing only in amount of gray matter and of education.

There is then no difference, anatomically speaking, between *human brain* and *animal brain,* consequently there *should* be no difference between human mind and animal mind excepting in degree. The same relationship existing between man and animals exists also between individuals of the same race: for instance, he who has a large and well developed brain, is stronger intellectually than the man with a small, undeveloped brain, other things being equal. This is said to be the general rule; not true in all, but in the majority of cases.

The degree of intellectual power is measured practically by the number and size of the convolutions together with functional development of the nerve cells. The higher the development, the deeper and more complicated becomes the convolutions, while the lower the intelligence the smoother and less complicated are the lobes, and cells of the encephalon.

Some of our greatest minds, it is true, had, comparatively speaking, small brains: for instance, Daniel Webster, whom we all take pride in referring to as a mark of intelligence, had a brain weighing but 53.5 ounces, while on the other hand that of Couvier, the great scientist, weighed 64 ounces and a fraction, and yet they were both recognized as master minds in their respective lines of work. Again we frequently find weak minded persons, the idiot or those extremely low in intelligence, or even the criminal who is confined in state prisons, with no education whatever, with brains abnormally large.

Side by side with these we see those who have unusually small brains with high intellectual powers and attainments. This, however, is the exception and not the rule, for it is a fact worthy of note that the weak minded, the idiot and the insane have brains a few ounces short of normal.

During my service at the Western Washington Hospital for Insane I had the privilege of examining 120 brains of insane subjects after death, which showed an average of but 46.4 ounces. This is from 3 to 3½ ounces short of normal. The number is too small to be conclusive, yet it goes to show the general tendency to a reduction in size and weight from the loss of functional activity.

This fact rather tends to confirming the clinical history—that it is not so much the *over worked* but rather the *under worked* man whose mental faculies become deranged by disease. It is evident, therefore, it is not the quantity of brain matter, but the *quality* as well as the activity of the nerve cells which marks the degree of intelligence.

Assuming then that we have an organized body in the shape of the brain with its millions of cells and fibres for its use, how are these delicate organs made to perform the functions of *perception, ideation* and *volition or feelings, thoughts* and *actions* which include the entire sphere of psychology? The first step in this process is *perception*. This is the power of conveying the different impressions from the outside world to the central station, the brain, or it might be said to be the accepting and registering of different feelings obtained through the media of the different senses.

The second step is that of *conception* or *ideation,* with its subdivisions of recollection, reasoning, memory, judgment, etc.; it is the process of *choosing* from the already registered impressions the pictures or imprints necessary for an existence.

The third step or *volition* has for its object the *putting into execution* the percepts, the concepts and the ideas which become necessary for the evolution of life.

These compound functions may be more fully explained in the following manner: An object is seen by the eye; the impression is reflected through the pupil to the back part of eyeball. From there it is conveyed through the optic nerve and tract to the cuneate lobe in back part of the brain. If the impression is an unconscious one, that is to say, if the mind is preoccupied at the time, or its function suspended by sleep or otherwise, the impression or percept is not lost as might be supposed, but is reflected to the *sight memory* cells where it is stored up as a *sight memory picture* until called upon by the conscious mind for future use.

The same condition continues through all the different senses of the body and by this process the brain, as a central organ of registration, receives by far the greater part if not its entire knowledge from the outside world. If impressions be engraved upon a certain cell or group of cells, they may thereafter become so weakened by fatigue or obliterated by disease that the whole picture is blotted out while the memories of other senses are left intact.

From what I have said it goes to show that the brain is a compound organ capable of *receiving, recalling* and *reproducing* at will the different impressions which have been conveyed to it from the outside world through the medium of the five senses.

As ordinarily understood it is simply the putting into execution the things seen and done from one moment to another and the percepts which are received unconsciously leave our memory for the time and pass immediately into oblivion, that is to say, leave the organic substance of brain, to be recalled or not by chance. If the theory just advanced be true, such is not the case for the impressions received, either consciously or unconsciously, never leave the mind in fact, but are stored up, as it were, in certain portions of the brain to be recalled at a future time by the necessary energy which may be required to put them again into execution.

From this we can readily see the brain is not only compound *physically*, but it is also compound *mentally*. I shall therefore divide it into two grand divisions—the *conscious mind* and the *unconscious mind*, or *objective* and *subjective memory*.

The unconscious mind, in brief, is the great receptacle of knowledge; in other words it is not restricted to time, space or operation, but may act in many directions at the same time. Conscious mind on the other hand is the narrow gateway through which a very small part of all this is able to reach us, a very limited proportion of the knowledge which is contained in the subconscious storehouse. By the proper application of the theory just advanced, it seems to me we can explain physiologically very many of the strange and heretofore unknown phenomena of human life.

The functions of sleep, dreams, hypnotism, somnambulism, mesmerism, spiritualism, and imagination, as well as other manifestations of the mind are, in my opinion, no more nor less than the functional activity of the *subconscious mind* which may or may not, as the case may be, arouse the conscious state without a certain amount of nervous excitement.

Sleep is said to be the suspension of the conscious state in which the power of recognizing impressions are, for the time, put at rest. Dreams are the incoherent actions of the *subconscious mind*. They are subject to two conditions, first, the energy and activity of the brain cells; second, the degree or soundness of sleep. For instance, if the sleep is light or the cells have been disturbed by a physical reflex, impressions are made to arouse the conscious mind to a state of activity, the result will be a recalling the substance of the dream on awakening; but if the sleep be sound or the conscious mind is put entirely at rest by any process whatever, either normally or abnormally, the impressions do not arouse the conscious state, consequently one cannot remember the nature of dreams on awakening.

Hypnotism is a condition where the conscious mind is for the time suspended, so that the individual is at will to do things or to recall the different concepts according to the dictates of the operator. Or it may be said that the individual furnishes a subconscious storehouse of knowledge subject to the will and the wishes of the individual who makes the suggestions. The person who is to be hypnotized must be one who is naturally passive in his nature or is willing to put aside for the time his will power and other conscious faculties and place himself entirely under the influence of the operator. This explains why a person cannot be hypnotized contrary to his will.

Imagination is a condition very similar to that of sleep. It consists in the partial suspension of the conscious state. It is the coherent expression of subconscious mind. The thought or recollections of past events may be, and usually are, somewhat rambling in their nature, but so long as the will power, judgment and other functions of the conscious mind remain intact sufficiently to guide the imprints in a *rational course,* the results may be a beautiful pen picture of a fascinating novel, a well worded poem or the exciting panorama of past events. But when the will power or regulator gives way entirely, ideation becomes disconnected, incoherent and abnormal. The latter condition may be likened to a ship at sea without a rudder, subject to the same influence as before but without the navigator to govern them in their course.

Mental telepathy is said to be the actions of two subconscious minds working in union with each other. This has of late been proven to be a scientific fact, but the manner, means or modus operandi by which this process takes place is at present unsettled. But I firmly believe the time will come when it will be demonstrated as fully as any other known phenomenon of human life.

A friend of mine a few years ago explained to me the manner in which he obtained the more sublimed thoughts. If he wished to prepare an essay, or sermon where a vivid recollection was demanded, he would take a cup of coffee or perhaps a glass of wine to strengthen the nervous system, then lie down and drop into a slumber or half sleep. After remaining so for an hour or so he would awake intuitively, get up and write for hours at a time. The result of this was more satisfactory than any impression received through a strictly conscious state. He called this inspiration, but if we accept the theory herein stated, the condition was simply the action of the *subconscious mind* and not the result of a superhuman power.

Permit me to sum up a few facts from what has been stated above:

1st. Impressions are resuscitated in proportion to the activity of the gray cells of the brain.

2nd. Consciousness is dependent upon a certain waking state of the cerebrum and the integrity of the cerebral substance.

3rd. Consciousness is not coextensive with mind. Mental power, as Mandsley well says, is organized before consciousness appears.

4th. The association of ideas goes on in the brain independent of consciousness .

If we will follow up closely these few principles, crudely as they have been presented, I think we can explain to our satisfaction many of the strange phenomena which in years gone by were assigned to the unknowable or attributed to powers other than human.

THE PREVENTION OF THE SPREAD OF VENEREAL DISEASE.

By M. Hugh Foster, A. M., M. D.,

PORT TOWNSEND, WASH.

Past Assistant Surgeon, U. S. Public Health and Marine Hospital Service.

Before considering the practicability of endeavoring to prevent the spread of venereal disease by legislative means, it may be well to discuss the point in ethics involved as to whether the violator of the moral code should be protected from the frequently inevitable results of his transgression. No one for a moment doubts the propriety or questions the duty of the medical man to relieve as promptly as possible the sufferings of a patient with venereal disease who applies for treatment, and if it is proper to shorten or mitigate the course of his affliction, however obtained, it is just as proper to prevent it in the first place if it is possible to do so. The rain from Heaven falls alike on the just and the unjust, and it is from a sanitary standpoint as much our duty to protect and relieve the wicked as the righteous. Moreover, the offender is not the only one to suffer, and his future wife and innocent posterity must be considered. The heat of passion burns hotly in youth long before self-control and denial have been developed to their fullest power, and during this period of illy balanced desires and strength of resistance, the individual is certainly entitled to protection from his own inborn weakness; more especially since the punishment is not tempered with mercy towards the irresponsible or shortened on account of good behavior or repentance afterwards. We are under the same obligation to prevent the spread of syphilis and gonorrhea by municipal control, if possible, as any other communicable disease.

Thinkers on the phase of social affairs are practically divided into two classes; the "Abolitionists," who would attack the problem by endeavoring to totally suppress prostitution, and the "Regulationists," who, believing this to be impossible, would try to decrease venereal cases by placing prostitution under certain regulations and a system of inspection. It is only fair to state that both schools believe that the public should be taught and educated on these subjects; that their moral sense should be stimulated, and that every effort should be put forth to limit this class of disease by encouraging continence.

It is not easy to determine whether religious teaching is causing a decrease in the relative amount of immorality in this country at the present time or not, but it is safe to assume that it will be a very long time, if ever, before we succeed in causing a very marked decrease in the amount of genito-urinary disorders by this means alone. "It will be admitted that in principle prostitution is wrong and that its entire suppression would be the ideal condition; but this ideal is not realizable. Prostitution is inherent in the human race; it cannot be annihilated, it is a necessary evil in our social system. We are confronted with the fact that the prostitute, like the poor, we shall have always with us. In dealing with this evil, speculative arguments, based upon an abstract principle which involves the perfectability of the human race, should yield to the doctrine of expediency." (Report of the Committee of Seven of the Medical Society of the County of New York.)

As much as I may wish it, I do not believe that we will ever be able to prevent illegitimate intercourse by moral suasion or the prohibition of public brothels. The closing of public houses has in every case resulted in a great increase in clandestine prostitution, and all genito-urinary specialists are agreed that this is infinitely more dangerous than the open and recognized form. Besides, it results in the scattering of the occupants of these resorts into cheap lodging houses, flats and tenements all over a city, and compels them to ply their vocation on the streets and other places where the moral effect of their presence on the community and the young is much worse than if they were confined to a restricted part of the town.

What can we hope to accomplish by sanitary control? The Abolitionists claim that the method of police supervision has been tried and has been proven to be a failure, but we do not believe that a proper system and its management in suitable hands has ever been attempted. The police of a city, corrupt as they generally are to the core, are not the proper means to use to superintend systems of this nature. The Board of Health should have this matter in charge, as they have all other things pertaining so directly to public sanitation and no taint of dishonesty should attach to those who have control of this particularly delicate and dangerous phase of public affairs. If the inspectors of the restricted district are political appointees, careless alike of their reputation and in their work, used in conjunction with a still more inefficient police, the failure of any system is assured before it is installed. The supervision of the demi-monde must be taken out of the hands of those who now generally control it, and the entire disagreeable business placed on such a plane that reliable men can be gotten to attend to it without thereby losing their prestige in the community.

It is manifestly impossible to give all the details of a plan of control which would necessarily vary under different conditions, but if it is expected to accomplish the desired ends it must at least fulfill the following requirements:

It must be under the direct control of the Board of Health.

All houses of ill-fame must be kept within a certain restricted district, remote from the ordinary residence portion.

All the occupants must be registered at the headquarters of the Board of Health, and a house to house inspection and examination of the inmates be made by reliable medical men at frequent regular intervals, not to exceed seven days.

To insure that every woman is examined and to prevent the exchange of certificates, or one healthy individual from obtaining three or four and supplying them to her more unfortunate friends, some plan must be instituted whereby each prostitute can be recognized both by the examining physician and the public who frequent the place. To accomplish this a certificate bearing the photograph of the bearer somewhat similar to those issued by the United States government to Chinese would probably be required. In these the signature of the examining officer is written partially across the photograph and partially on the paper surrounding it so that the removal of the portrait and the substitution of another for it are impossible and anyone can identify the bearer as the proper or improper owner of the document.

There must be some provision whereby diseased individuals shall be immediately removed from the district and kept from plying the trade until they have been cured or progressed to the stage when they are inocuous. No system will be successful without this provision, and it is probably the most difficult condition to fulfill of the entire problem. Unless they are rigidly quarantined during the period of treatment, they will undoubtedly spread the infection. Since they can earn no money while not engaged, they must be provided for during convalescence as well as during the period when they need actual hospital treatment. It is evidently unjust that the general public should be taxed for such a purpose, hence the fees collected for licenses and the regular inspections should be large enough to pay for the examinations and also to provide hospital accommodations for the fallen when compelled to abandon their practices for sanitary reasons. This will come indirectly from the class whom we are protecting, and they should foot the bill.

The most important objections generally offered against such a system of control are:

1st. That it will not reach the large body of private and clandestine prostitutes. This is unfortunately true, but half a loaf is better than no bread at all, and if we grant that it will cause a material decrease in the number of cases contracted in public resorts the good results obtained in this way alone would justify its establishment and the increased danger of private as compared with public prostitution would have the effect of lessening the former.

2nd. That weekly examinations are insufficient to promptly detect sources of infection. Granting this, is it not better to remove a woman at the end of a week rather than to permit her to remain a source of infection for several months or even longer?

3rd. That it is impossible to make a diagnosis in certain cases. The same is true of smallpox, scarlet fever or any other communicable disease, but we still find that an effort at quarantine is very effective in diminishing their occurrence and preventing their spread; and with our constantly increasing powers of diagnosis and discoveries in bacteriology we can certainly expect that in the future the number of doubtful cases will constantly grow less.

4th. That the length of stay in hospital is too short. This is a detail most easily corrected, if we include venereal among other communicable diseases amenable to law.

In short, all these arguments are to the effect that no system could be expected to completely prevent venereal disease, but if a plan of control will but considerably diminish their number, the good results obtained therefrom would certainly seem to justify its establishment.

Because we cannot obtain perfection is no excuse for sitting in idleness with folded hands and making no attempt for the measure of success which awaits honest effort.

Public sentiment in America is so strongly against any form of supervision which will recognize and license the social evil that we cannot hope to see any such plan adopted while the present prejudices prevail, hence many other suggestions have been offered.

The penalizing of the transmission of syphilis is advocated by many, but even granting what in most cases would be utterly impossible, that we could prove from whom the disease was contracted, how many syphilitics would be willing to publicly acknowledge in court that they had the disease even for the purpose of prosecuting the offender? Although the existence of such a law might be a valuable means of education to the public, its enforcement would be possible only in the rarest instances.

Even more impracticable as far as the results are concerned is the plan proposed by some of compelling, under penalty of heavy fines, the keepers of houses of ill-fame to report all cases of venereal disease occurring in their resorts. To enforce such a law you must prove that the keeper knew of the presence of the disease and its nature; knowledge, unless she was a detective and an expert diagnostician, she could very easily keep herself from acquiring.

The most promising means of suppression among those offered as now available, is to stamp out as quickly as possible the centers of infection by the prompt and vigorous treatment of each case. Thus good medical attention and medicines should be within the reach of all. The rich and well-to-do can be depended upon to attend to this matter themselves, as there is nothing which will cause the average man to consult a physician quicker than some real or fancied disorder of the genital system, but some especial provision must be made for the poor. We take into our public hospitals the man injured while assaulting another or the morphin wreck and ask no questions, but public and private charity is deaf and blind when these unfortunates apply for aid. This is not only straining the quality of mercy, but allowing grave menaces to the general health to continue without the slightest attempt on the part of the guardians of the public weal to abate them. It is certainly justifiable from the standpoint of humanity and expedient for the good of the community to treat these cases in public institutions when they are unable to pay for treatment elsewhere. Thus, as recommended by the committee of the Medical Society of the County of New York, the first step we should take is to furnish treatment at our public hospitals and dispensaries free of charge to all who are unable to pay a doctor. Certainly skillful and persistent medical care of both sexes when afflicted with venereal accidents will greatly lessen the spread of infection to others, to accomplish which is clearly the duty of the state, profession and public, and surely can offend the moral prejudices of none.

OPERATIVE TREATMENT OF ABNORMAL TONSILS.*

By Jno. A. Donovan, M. D.,

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Oculist and Aurist B. A. & P. R. R.; Murray & Freund Hospital, etc.

Having received many inquiries from practitioners following the publication of my paper on "Recurring Tonsilitis" (Detroit Med. Journal, Jan. '03), I now give more detailed description of methods of operation; therefore will not cover the subject matter already published. By abnormal tonsil I mean any faucial tonsil that is producing or is likely to in any manner produce local or reflex irritation, obstruct respiration, or act as portals for infective material to lodge in and later decompose, producing local or constitutional diseases as tuberculosis, typhoid, pneumonia, etc.

From the fact that, should one make a practice of examining the throats of all who have no local troubles, usually no tonsils are visisble, we, as a general rule, might say every visible tonsil is abnormal. Many of the most annoying and distressing symptoms arise from those atrophied or submerged tonsils which have escaped recognition for so many years, therefore the physician must no longer declare tonsils normal when not visible by ordinary means of inspection.

Today there is so much disagreement among laryngologists respecting the treatment and especially the methods of removal, also the amount to be removed, and having in a previous paper discussed this, I shall here give only my opinion based on a careful study of cases in my own practice, as well as observations I have made in the practice of others.

(1) I advise, in children, the early removal of all the visible hypertrophied portion of abnormal tonsils. A few good authorities practice entire removal in children, and I am not sure but they are correct.

(2) In adults, the thorough removal of all diseased portions should be done.

(3) Since in these honeycombed or cryptic tonsils, the diseased crypts extend to an uncertain depth, therefore the only certain method of cure is the removal of the entire tonsil.

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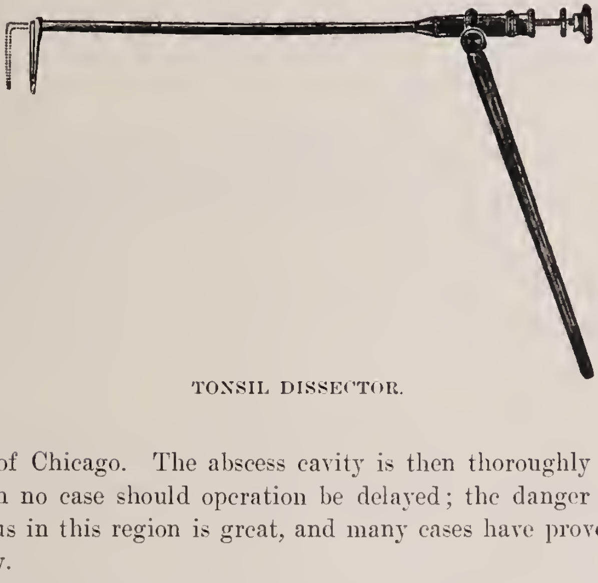
*Read before the Montana State Medical Association, Helena, Mont., June 17 and 18, 1903.

(4) Although in all adult cases the entire removal at one sitting is the ideal method, it is not always the most expedient; nearly the same results can be obtained by repeated sittings and destroying each crypt by itself with electro-cautery.

To pass at once to description of operative methods:

ACUTE CASES.

(1) Most common is peritonsillar abscess (in reality an accumulation of infective material in the supratonsillar fossa, with its surrounding infected area). The ideal method of treatment is to open the supratonsillar space, separate the pillars (thus allowing free drainage) with the tonsil dissector devised by Dr. N. V. Pierce of Chicago. The abscess cavity is then thoroughly washed out. In no case should operation be delayed; the danger of confined pus in this region is great, and many cases have proven fatal by delay.



TONSIL DISSECTOR.

(2) Acute tonsillar inflammation or abscess. I now prefer the immediate removal of the gland or the greater portion of it. Do not wait for the subsidence, as the relief is often immediate.

(3) Abscess of anterior pillars being usually of dental origin, incision should be made in this region; i.e., near back molar tooth.

Though in any of the above, an attack may frequently be aborted by giving a brisk cathartic and local application of 50 per cent. guaiacol, 40 gr. silver nitrate, or 25 per cent. argyrol solution, yet if the patient has history of former attacks, he will be saved much suffering, time and expense by immediate radical interference to avert future attacks.

CHRONIC CASES.

Unfortunately the great majority of these cases are even yet not recognized. We must treat each according to the special indications in the individual case. The now most popular Matthew's Tonsillotome, still our most convenient instrument, I firmly believe, when used in its present form and alone, is an instrument soon to be doomed. Yet today in those cases of simple hypertrophy with not too extensive base, I use it in preference, as for time and convenience in these cases it is in the lead. An assistant should always make counter pressure with fingers on outside of neck.

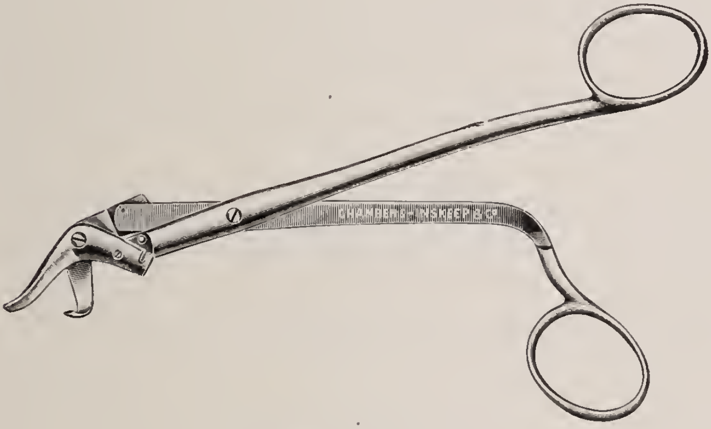
When removal of the greatest amount of tissue or the entire gland is indicated, first dissect loose the so-called adhesions (otherwise you cannot get out all the tissue and will likely cut the pillar, leaving a more painful area; also, having divided a muscle structure, interference with its action and possible alter the voice); then, catching the tonsil firmly with a good tonsil forceps, slip the tonsillotome down over the forceps and while making firm traction cut tonsil off at base. The fork in the instrument does not interfere in these cases. The results are good and thorough removal in favorable cases is accomplished.

With Peter's snare practically the same results are accomplished, while it may have some advantages. He claims for it a bloodless operation and his experience has been extensive. Though Dr. W. L. Ballinger reported severe hemorrhage following it in one case, this simply demonstrates that no method is absolutely safe with every patient.

By the use of Ingals' tonsil forceps any ordinary heavy tonsil snare may be used, but it is customary first to make an incision above and below into which the tonsil wire anchors. This thoroughly removes the gland. The snare devised by Dr. Chas. Baker, Bay City, Mich., may largely simplify this procedure. Myles' cutting punch or other punches have a special though limited field. From an economic standpoint, a good catch forceps and Hobb's knives will accomplish nearly all that can be obtained with any of the more complicated instruments. Some operators make an incision and peal the tonsil out with the finger nail.

The electro-cautery may be used in many ways. Dr. Pynchon dissects out the gland with the cautery knife and gets nice results. The use of the cautery snare, though recommended by many, I do not favor. By carefully entering the cautery point to the bottom of every crypt, all diseased tissue may be destroyed in time. This method of procedure I follow in many cases where immediate removal would not be consented to. Again the tonsils may be removed by burning a portion at a time. I recently used this method successfully with a little girl, whose brother ten years ago died of hemorrhage following the removal of a tonsil, and whose sister barely escaped the same fate three years ago, while electro-cautery snare was being used.

At the present time, for the complete removal of all diseased portions of tonsils, especially in the small degenerate variety in which it is so important to remove that portion high up between the pillars, I know of no instrument so well adapted as Dr. C. M. Robertson's scissors; they are made for right and left. The adhesions are first loosened with his dissector, then with the tonsil forceps firm traction is made, and with the scissors, cutting from above downward, every portion can be removed. Search should be at once made for any remaining portions which may be easily clipped out. From these hardened parts, considerable hemorrhage may occur, which instantly ceases on the removal of the part.



TONSIL SCISSORS.

To be successful with any method advised, one must not overlook any detail. It is in the exactness with which each step in the procedure is followed that makes the operation which is so successful in one man's hands a failure in another's. Again, with the present liberty given to manufacturers, many instruments are so distorted they can hardly be identified by the inventor. It is therefore of the utmost importance, in buying any new instrument, to be sure it is a duplicate of the original one recommended.

In conclusion, I would say that the fee charged by the average practitioner for proper removal of the tonsils is not sufficient compensation for the amount of skill required and the responsibility assumed in doing thorough conscientious operating in this region.

THE PENALTY OF GENIUS.*

By Ernest Crutcher, M. D.

GREAT FALLS, MONT.

"Genius, in one respect, is like gold—numbers of persons are constantly writing about both who have neither."

A study of the biography of the intellectual geniuses of all history seems to indicate that possession of great talent is had at fearful price. The most cursory examination of the list of great men will manifest an appalling number of epileptics, insane, neurotics, moral perverts, misanthropes, suicides, hypochondriacs, or misshappen bodies. Nor is the list limited to poets, authors, statesmen and soldiers; for there is scarcely a musician whose name has come down to us as famous who was not likewise in some manner afflicted.

"Great wit to madness sure is close allied," said old Dryden; and he spoke truly. Macauley declared all poets insane. The writings of some of the giant intellects of history plainly avow uncontrollable impulsions to insane acts, and many toward suicide. The roster of self-destroyed men of letters is a very long one, nor was there any reasonable excuse for it beyond an unconquerable disposition to such act.

Swift, Johnson, Southey, Cowper, Byron, Shelley, Goldsmith, Luther, Lamb, Poe, Socrates, Richelieu, Goethe, Cromwell, Rousseau, Joan of Arc, Mozart, Chopin, Tasso, Beethoven—how long the list might be made!—all exhibited insanity in active form, or were afflicted with hallucinations.

Caesar, Mohammed, Paul the Apostle, Byron, Napoleon, Charles V., Alexander, Cambyses, Peter the Great, Moliere, Bossuet, were epileptic. Pope was "a little crooked thing" and a prey to hallucinations. To undertake to catalogue the noted men and women in the world of letters and music who suffered from nervous complaints, melancholia, or delusions of special sense, would stretch the line out to startling length.

In nearly every instance of extraordinary mental power, either of authorship, invention or music, there seemed attached or consequent some nervous affection, or strong disposition to insanity.

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*Read before the Medical Association of Montana, Helena, Mont., June 17-18, 1903.

Suicide has been the commonest ending of the great men of the world.

Standing out almost alone as a well-balanced man, is the name of the greatest of them all—Shakespeare. Balzac, his nearest approach in scope and power of genius, died at 52, of brain trouble, superinduced by hypertrophy of the heart.

Emerson looms out in the sky of literature, cool in head, warm in heart, and steady of nerve, but even he, like Swift, "died at the top." It is a singular fact that the majority of the geniuses of history had some obliquity of mind or body.

As a rule, the great geniuses of the world died childless, or begot few children, and these mostly degenerates. In fact, it is notable that many geniuses themselves were the offspring of dissolute, mad, drunken, epileptic or criminal parents. There seems a parallelism, between insanity and genius; and while many men of mighty minds begot degenerate scions, numbers of these geniuses of intellect were the products of moral monsters. Many were begotten outside of wedlock; sexual perversion afflicted many; some were sexually amnesic. Some like Tasso, were dissolute in early life, and later eschewed women entirely. Newton, the profoundest philosopher the world ever saw, lived a virginal life till an extreme age. Rousseau, by his own "Confessions," was a masochist, and further avows having left, one by one, five infants by his consort to the care of the foundling home.

I can recall no prominent genius who was wanting in egotism or paranoia.

In considering the subject, many corollary thoughts obtrude themselves, and one is the fewness of female geniuses. The most prominent in literature being, perhaps, Madame de Stael, George Sand and George Eliot.

Another thought is the smallness in figure of those possessing (possessed by?) fine minds. The list of large or even tall men among the number of great men is narrowed, and such as occur in this brief survey, are Voltaire, Rousseau, Schopenhauer, Peter the Great, Ben Johnson and Scott. Great genius is almost always connected with small stature, or defective body, or one-sided character.

The slender proportion of great minds that occurs in a given number of millions of people is beyond belief when stated. But in contemplating the statement of Professor Shaler in his book, "The Individual," all may be consoled. This thinker averred that after the lapse of a thousand years, not one name in one hundred million names is remembered.

It is a common observation that in a man or woman who has talent of unusual sort in any special direction, there is found one-sided characters who do silly things, or are extremely nervous, or are intolerably irascible in temper.

History is full of instances of brainy men and women who have gone insane because of some intellectual feat; and suicide, or mysterious death, has overtaken numbers of the possessors of gigantic minds who molded, blessed, or led thought during the past.

Phrenologists have mapped out the brain into forty-two faculties, which, they assume, in a well-ordered mind, equate and co-ordinate in action to the good of the individual. A want of co-ordination among these several faculties, or the over-development of any one of them to preponderating extent, results in idiosyncrasies, or erratic actions, or hallucinations. If none dominate the others overmuch, there is an harmonious concord of mental, moral and physical action in the individual.

Men and women of unusual mentality seem to hold it at the cost of physical degeneration. The greatest minds of biographical history seem to have been contained in contemptible bodies, or frames which seemed to have yielded to the mental development, or bodies that quickly became impaired—starved, perhaps—by the undue activity of the mind.

Could there be a great mind unfolded within an individual having a strong physical envelope, might there not be heights of intellectuality possible not yet attained by any predecessor? Nay, so lofty might the fruits of such physically bulwarked mind become, there be few on earth now who could comprehend its emanations. This observation partly applies even at this time in connection with the writings of the psychical Emerson, and others.

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There are multitudes of people who are conscious of being on the danger line of madness; whose "fever of sense" recognizes that were they to yield to the disposition to absorbed intellectual bent, they could doubtless produce thoughts of beauty and grandeur, but to the imminent destruction of their sanity. Some have difficulty in resisting the impulse to prodigious mental effort; painfully cognizant of the restless "movings" of the spirit within. Byron said: "I must write or I burst."

Unquestionably, dethronement of reason is very close to many, and recognition of it by the subject withholds from straining the mental tension too far, lest the guiding forces of the mind be snapped.

May not this idea partly explain the divine madness of some of the superlative minds of history? May it not be a spiritual aspiration which transcends the power of the physical brain to contain; and in the throes of a gigantic thought-birth, the molecular cells of its organ of expression, the physical brain, are destroyed, to the most times, mortal hurt of the individual tremendously gifted in imagination and ideation? It is an ordinary experience among educated persons of reflective mind to have thoughts too mighty for expression in words, and almost beyond their own prompt comprehension.

Shakespeare, Byron, Milton, Balzac, Swedenborg, wrote beyond their own recognition of the depth of their thought. Their profoundest ideas came out of their subconsciousness, nor were appreciated by their own objective minds. Nor did their contemporaries comprehend the sublimity and beauty of their songs to the full. Nor do we yet: nor can our successors hardly, till their intellectual processes may have grown sufficiently refined to admit their grasping objectively that which is perceivable practically only by the subjective sense. Superior thoughts come only out of the subjective depths, nor can they be kenned save by the subjective intelligence. For it is much like spiritual gifts—they are discernible only to the spiritually minded.

We must be spiritually developed, for instance, ere we can know the full mightiness and rich beauty of the thoughts breathed forth by some of the geniuses of the sixteenth century. For the sixteenth century was essentially the zenith century in literature; nor is the world psychically prepared for a greater burst of intellectual glory just yet.

How many, think you, can read between the lines in comprehending Emerson, Dante, Milton, and others? Not one in ten thousand. They were centuries ahead of their own objective comprehension and age. How many grasp the psychic subtleties of Balzac? This forceful thinker prefigured fifty years before their recognition, most the secrets of today's psychology, which but yesterday were made clear to us.

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With our boasted brains of today, how much have we advanced in intellectuality in two thousand years? How much more capable of deep thought, research, or reason than the students of that musty day? In retrospecting literature, and considering the thoughts of the more luminous writers of the long ago, as far back as two thousand years, or as far, even, as the Chaldeans of eight thousand years ago, one is aghast at the stupendity of their mentality and its relative greatness with ours of recent date.

As a mass, mankind is much ahead of the days named, because of the widened ratio of education and facilities of learning, but as an individual, man's thought of today is no more profound than that of Aristotle, Cicero, Seneca, Galen, Augustine, Marcus Aurelius, Copernicus, Epictetus, and other worthies whose ideas have survived the rust of time, and are treasured for our delectation.

The mind is ever expanding, and its powers of observation and facility of absorption increasingly widening; but its evolution in magnitude of thought is as slow as has been his physical advancement from a lower to a higher plane.

There are few scientists of note who deny the theory of evolution. Nor can we believe that this august, complicated, marvelous creature we call man has come to his individual estate by the brief enfoldment of forty-two weeks within his mother's body.

In man, viewed from an evolutionary standpoint, we find variation or advancement of physical form has well nigh stopped. Yet not quite, else the vestigial organs still clinging to him would have entirely disappeared. Man's physical changes in future must lie along the line of increased complexity of cell and revisement of tissue. This is essential because of the psychical advancement that is his destiny. For the onward march of all created life is soul growth, mind expansion, psychical perfection.

In the incalculably distant future man will have other senses by and through which he will receive and give out his thought. En passant, and as emphasizing this claim, the predecessors of man originally had but one sense—touch. Later, from dermal sacs, like the hairs of a cat, there developed the organs of the eye and ear; and thus were added enormous facilities for acquiring knowledge of external conditions. With the expansion of man's capability of thought must come facilities for expression and refinement and elaboration of its instrument, the physical brain. The more diverse the powers of a given piece of mechanism, the more complex the machinery. The finer the product of the brain, the more exalted and refined its texture through which the mind must act.

To effect this there must continue an evolutionary development of the brain; but its cellular chastening and resultant augmenting capacity must be as slow or slower than his bodily unfoldment through the ages. Ergo, man, intellectually, is not to be measured by one or two or three thousand years; for "a thousand years is as a day" in mental evolution.

The chief future development of man is to be along psychical lines. His physical being is not wholly completed, though almost, as far as his residence on this small planet may be concerned. Along psychical lines man can and will grow broadly; and such unfoldment of mentality will be slowly continuous. It cannot be faster than his physical brain shall develop. Else, dethronement of reason will result. If it were to be rapid, the functionating organ through which it effects expression would not be prepared for containing so refined an element as higher powers of thought would require as its medium; the brain would be destroyed through the force of super-normal thought, much as a too-powerful current of electricity might destroy a dynamo built for lower voltage. May not this idea partly explain the giving-way of brain and nerve-tissue in the greater minds of the world?

A flywheel of a machine has only so much resistive energy. If exceeded, its molecular coherence is overcome, and the wheel flies into shattered fragments. Is not this a crude analogy of the cause of nervous disorganization of our great thinkers? The thought force sent out through the mechanical brain was overpowerful for its molecular containment; and disorganization resulted. The battery was overcharged.

The writer is under conviction that our bodies are cumbering (if needful) machines to our souls or minds. It seems a necessary experience for our spiritual evolvement into higher existence that we sojourn here on this planet for a longer or shorter period; and that these physical bodies are temporarily thrust upon us for our inhabiting meanwhile, suited most admirably to our environment in mundane life. That with the wearing out of this physical soul-house, or with the expanding growth or aspiration of the spirit, we burst out of it many times, through the blessed process called Death, and then—on—into vaster fields of intellection.

Fine thought cannot come from common brain tissue, any more than figs from thistles. Hence, with refinement of brain cell and nerve fibre in the ages to come, we shall find man capable of harboring and projecting thoughts of so transcending vigor and sublime excellence and beauty as to be beyond the comprehension and ken of even our most astute and subtle intellects of today.

METHODICAL TRAINING IN SURGICAL TECHNIC.

By R. C. Coffey, M. D.
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METHODICAL CLEANSING OF THE HANDS.

It is now conceded by all authors that one of the most important considerations in surgical technic is the cleansing of the hands of the operator, of all assistants, and of the field of operation. Yet, in searching literature we find no detailed technic of methodically scrubbing the hands or field of operation. It seems that all authorities have taken it for granted that every one should know how to wash his hands and that anyone should be able to properly cleanse the field of operation without instruction if he only knows where the field is. For some time I have carefully watched doctors and nurses, at various hospitals, and have been surprised to know that a very small percentage thoroughly wash all parts of their hands. I have seen but few who seemingly used any method which had apparently become a part of themselves. I have noted also that none have seemingly concentrated their minds on this work. The hands are generally being scrubbed while an active conversation is taking place, or matters entirely foreign to the cleansing of the hands are being discussed. The consequence is that the work is done entirely by habit. Some spend almost their entire time rubbing the ends of the fingers along the brush; others spend most of their time washing the palms of their hands; others the backs; some devote a great deal of attention to scrubbing the arms; others divide the time giving each a portion of the scrubbing, and some even separate the fingers and carefully scrub between them.

My colleague, Dr. Geary, in discussing this matter, suggests that this is probably the reason that scabies develops more between the fingers than in any other exposed portion of the body. Every one knows how boys wash their hands—the palms by rubbing them together, and the backs by an over and over motion which brings the palm of each hand in contact with the back of the other. The germs of scabies are therefore washed off from the exposed surfaces before they have had time to bury themselves in the follicles of the skin. As the boy never separates his fingers while he is washing, the germs have time to hide themselves in the follicles of the skin in the interdigital space unmolested. These "Itch bugs" are germs, as are the streptococci, and if one is harbored in these protected places, why not the other also?

Many persons, although they spend fifteen minutes in washing their hands, devote almost their entire time in alternately scrubbing the palmar and dorsal surfaces, arms, and ends of the fingers without once widely separating the fingers and washing the lateral aspects and crotches, or even scrubbing carefully and systematically around the dermo-ungual junction, because they retain the habits formed when children and thus frequently do very careless work. Hence the necessity of long and rigid hospital training for both nurses and doctors. Now as we see this cleansing is practically all done by habit it is very essential that we form correct habits. After giving this subject careful study and observation, I have formulated a technic "Methodical Cleansing of the Hands," which is as follows:

1. With sterilized liquid green soap and sterile brush scrub the hands from the wrists down in the following order: Begin with the thumb on the left hand and scrub the thumb thoroughly as follows: Radial side, dorsal surface, palmar surface, radial side again, end of finger and nail, root of nail, ulnar surface of thumb, interdigital space, radial side of index finger, dorsal surface, palmar surface, radial side, end of finger and nail, root of nail, ulnar surface, interdigital space, radial side of middle finger, etc. Studiously scrub under and around every portion of the nail and surface and the space between the thumb and the index finger. Scrub the index finger likewise, carefully concentrating the mind on every move of the brush and paying special attention to the interdigital space. Continue across the hand, taking in all the fingers in a similar manner. Then take the right thumb and proceed across the right hand in like manner. Now begin again and scrub the left hand as a whole, beginning on the thumb side, passing over the back, around the little finger, across the palm and back to the thumb. Include the wrist in this scrubbing. Then a general repetition over the entire hand in the same manner, including the nails. Then the right hand in a similar manner.

2. Put down the brush and with a sterile nail file carefully clean under and around each nail, beginning with the left thumb, and take every nail in the order given for the scrubbing.

3. Soap the arms and hands from the elbow down with sterile green soap. Take a fresh sterile brush, begin with the left arm and scrub down to the wrist. Scrub the right arm in like manner.

Then begin with the thumb and scrub the hands in the manner described in the first step.

This completes the mechanical portion of the cleansing. Here we may either take the lime and soda combination followed by bichloride of mercury or the alcohol, permanganate of potash, oxalic acid and bichloride of mercury solutions, or a combination of both. For frequent use the permanganate and oxalic acid solutions are sometimes irritating to the skin in which case the other methods should be used.

In case you are not doing a great deal of operating and your hands are in good condition I think it would be well to use both methods and especially if you have been doing any pus dressing or have come in contact with any septic cases. The lime and soda method is as follows:

Take a tablespoonful of chlorinated lime and an equal quantity of sodium carbonate and run them together in the moist hands until they are of a soupy consistency; thoroughly rub this on every portion of the hand and arm and wash off in sterile water. You may use ammonia to remove the odor of the lime if you so desire. Then scrub the hands with alcohol, plain water and lastly with bichloride solution, allowing them to soak at least two or three minutes in the latter. If the skin of the hands is in good condition it will do no harm to continue through a solution of permanganate of potash and oxalic acid. I am of the opinion, however, that the solutions of permanganate potash and oxalic acid are still the best of all for cleansing the hands and we therefore use it as the standard of the North Pacific Sanatorium. The method is carried out as follows:

After thoroughly cleansing and scrubbing the hands and arms as previously directed, scrub the hands thoroughly with alcohol in order to dissolve the oil left from the soap: rinse the alcohol from the hands to prevent its chemical action with the permanganate solution: immerse the hands and arms in a hot, saturated solution of permanganate potash, paying especial attention to immersion of the hands. Then immerse the hands in a hot, saturated solution of oxalic acid for the purpose of removing the permanganate stains and here I may state, that some of our best authorities maintain that the oxalic acid is even a stronger antiseptic than the permanganate solution. Rinse off the oxalic acid in a 1:1000 solution of bichloride of mercury.

In washing the hands, if you should find it necessary to lay down your brush, you should under no circumstances put the brush side down, for by so doing you might pick up septic germs which some one had just brought from a most septic case. In this case you would, with your brush, possibly rub septic germs under your nails and thus infect them.

Never use a nail cleaner you find lying loose on the top of a wash stand for the same reason, but always use a freshly boiled one. In preparing for an operation never use a brush others have been using, for you do not know what they have handled.

PRELIMINARY PREPARATION FOR AN ABDOMINAL SECTION.

In preparing for an abdominal section you will constantly bear in mind that the doctor himself rarely knows before he opens an abdominal cavity the exact condition he will find, or just how many, where or how hurriedly he will have to make an incision. At times in operating for appendicitis we find a floating kidney, gall stones, or a pyosalpinx. If the doctor does not know before hand the nurse will not. We do not know at what abdominal section we will need intravenous or subcutaneous transfusion. You never know when it will be necessary to connect the abdominal cavity through the Douglas' culdesac with the vagina. It is therefore well to have all these things in mind in preparation for every abdominal case. For convenience, we will divide the cleansing of the patient into two stages. First, preliminary; second, preparation at the time of operation. I wish to lay special stress on the first, for it is certainly not less important than the second. If the preliminary cleansing is well done, the second will require much less time. It matters not how long it may require in the preliminary cleansing, for the patient is not under an anesthetic, but I want to impress you with the necessity of great haste and expeditious work while the patient is under it. Five minutes extra anesthesia may be "the straw that breaks the camel's back." The patient may be ever so strong and the operation thought to be ever so simple, but we never know when we may, by accident or peculiar circumstances, tear a bowel, clamp a ureter, open the bladder, puncture a large vessel and many other unlooked for things which may take hours to remedy. The patient may not have shown the shock of the anesthetic until the last five minutes of the operation when he suddenly begins to fail and fall a martyr to the delay of the nurse not doing sufficient preliminary cleansing.

All patients coming in today for an abdominal section tomorrow should have the following preparation: This evening a general bath in a tub of hot water. The nurse should not entrust the patient to do her own bathing, but should go with her, and with a cloth and plenty of soap, should scrub the entire body, with special attention to fluexures and protected points, as the axilla, groin, etc. After the soap has been entirely rinsed off, a clean bath towel should be used vigorously until a patient is thoroughly dry and a good reaction takes place. A sterile gown is then put on and the patient is taken to the dressing room where special cleansing is applied. The first thing to do is thoroughly cleanse the umbilicus with a cotton swab, green soap and water. Be sure that every crevice is thoroughly explored and systematically cleansed, next with a piece of sterile gauze and green soap lather the entire abdomen from the ensiform cartilage to the symphisis pubis, and from axillary line to axillary line. With a sharp razor shave every particle of hair over the entire surface and well below the crest of the pubes. Now wash your hands and with a sterile brush, or if patient is sensitive a piece of sterile gauze and green soap, scrub the patient as thoroughly as possible, beginning at the umbilicus and linea alba and gradually radiating until you have reached the edge of your proposed field of cleansing. In this way you carry all your dirty water off the field of operation before you instead of scrubbing promiscuously over the entire field. This washing from the center will be aided by pouring a little sterile water in the center of the field as you go along, thus washing your soapsuds outward. After the soap is all rinsed off, alcohol is poured over the surface to dissolve away the soap and is quickly taken up by rubbing with sterile gauze or towel and this quickly followed up by ether used in the same manner. Then cover the field of operation with a dry towel annd pour over it a solution of bichloride of mercury 1:1000; allow this to remain while you carefully wash the breasts and flexures of the arms and subaxillary space and prepare them in the same way, so that, in case transfusion is necessary tomorrow, no great length of time will be required in which to prepare the field thoroughly. Now remove your bichloride towel and cover the field with several layers of gauze which have been soaked with a saturated solution of boracic acid and cover this with oiled paper in order to keep the moisture in and thus macerate the epithelium.

With a binder that is wide enough to extend from the pubis to the ensiform cartilage bind these dressings on. This binder should be so fastened that it can be rapidly removed at the time of operation.

If pelvic work of any kind is expected, by this I mean any operation which is supposedly connected in any way with the female generative organs, the preparation given above should be extended by continuing the shaving backward including the perineum. At this point we will continue by giving methodical cleansing for vaginal or uterine work.

You will notice two principles in methodical cleansing standing out prominently: First, if you have a cavity or opening to cleanse in your field of operation, always cleanse it first; second, never scrub the debris of a dirty field over a cleaner one. If you scrub your surrounding field and then cleanse the opening, you reinfect your field and thus require double work besides taking double chances of infecting your field. If you scrub the debris of a dirty field over a cleaner one you add greatly to the amount of work and time required besides taking chances of infecting an otherwise clean field.

I have frequently seen a nurse begin by taking in the entire field including the area from the tip of the coccyx to the symphisis pubis and a portion of the thighs, scrubbing the debris of all parts together and then distributing them over the entire field, then with the same brush partly wash the vagina make another excursion over the external field, then again the vagina and so on indefinitely, as if she feared one part might escape her and be cleaner than some other. In order to make the even distribution doubly sure, she would every two or three strokes of the brush, dip in into a pan and wash off all the debris possible, and finish up her preliminary washing by pouring this essence of all the filth gathered from the entire field over the field again to rinse it.

It is very poor technic to dip a brush or piece of gauze back into a pan of water after it has been used on the surface you have been cleasing. Just a few drops of water poured over the field and the brush will do much better and would be getting rid of dirt all the time rather than first scrubbing it off and then putting it back on and harrowing it in with the same brush.

CLEANSING THE FIELD FOR A VAGINAL OR CERVICAL OPERATION.

On the night before the operation preparation should be done as follows: First, thoroughly scrub the vagina with gauze and green soap. Carefully wash around the cervix, then around the vaginal wall, coming towards the outlet. It is rarely justifiable to use a brush for cleansing the vagina and labia, for it almost always leaves abraded and bleeding surfaces which are breeding places for septic germs. Then with a fresh piece of gauze and warm soap suds cleanse the vulva, beginning in front, following out each fold in the labia from before backward until the perineum is reached; with a pitcher of warm sterile water rinse out the vagina and each fold of the vulva. Then proceed to lather the surface around the vulva, beginning in front and going backward, taking care not to scrub from the perineal region toward the front. Shave the surface, beginning in front, including the folds at the junction of the vulva and thigh and extending back of the anus, if the operation is to include the perineum. Now scrub this shaven surface with brush or gauze and soap, and rinse well with warm water followed with bichloride of mercury. It is of course understood that the patient has had the necessary cathartics. About an hour before the operation in the morning give the patient a warm saline enema to thoroughly cleanse the recttum. After this has past, the patient should have a hot bichloride douch and is then ready to go to the operating room where the cleansing will be completed under anesthesia.

We will not continue the details of preliminary cleansing further, but will close by stating that the general principles for the preliminary preparation of an abdominal case will apply to almost all other locations of the body. Special mention might be made as to preparing the head for trephining. No surgeon making pretensions to cleanliness should accept preparation for a trephine operation until the entire head has been shaven. The idea of shaving a part of the scalp and leaving the other unshaven does not add to the personal beauty of the patient and adds very seriously to the dangers of infection for, as in abdominal surgery, we never know when nor where we will have to make a second opening in order to reach the exact site of the disease we are seeking.

We will close with the one broad rule: In scrubbing a field of operation begin at the site where the incision is to be made and radiate from this.

This will be followed by "Preparation of the Patient in the Operating Room."

CLINICAL NOTES.

A FATAL CASE OF HEMORRHAGE FROM PLACENTA PREVIA. INVERSION OF THE UTERUS; RECOVERY.

By GEORGE S. WRIGHT, M. D.,

FRIDAY HARBOR, WASH.

The country doctor enters some single-handed conflicts with adverse conditions in midwifery, in isolated communities, which put him severely to the test. Two cases of this kind which I have met may be of some interest.

Case 1. A few years ago I was called to see a woman on Orcas Island, eight miles distant, by water travel. I was asked to lose no time, as she was said to be flowing at the commencement of labor. Upon arrival I found the woman, a multipara about 40 years of age, having light hemorrhages from the uterus; cervix relaxed and open to diameter of a silver dollar.

The os was occluded by the placenta, which was attached to the lowest segment of the uterus. I decided to remove the placenta without delay, and did so without difficulty, detaching it by the disinfected hand.

This excited only moderate pains and slight hemorrhage. Upon further examination, after a few minutes, I found that I had a shoulder presentation to deal with. It was not a case for delay, as a uterus, minus the placenta and plus a fœtus, is liable to more than troublesome hemorrhage.

I accomplished the most available turning by bringing down a foot, and soon had the child delivered, still-born. This proceeding left patient, who was a woman of rather less than average stamina, somewhat wearied, but in fair condition, with good pulse, and expressing gratitude to me for having seen her through two complications in her childbirth.

Her satisfactory condition, with almost no hemorrhage, continued for about twenty minutes, when she commenced to flow rather rapidly. The uterus, which had been properly contracted, could now be felt to relax, and firm compression by the hand succeeded in only momentarily causing contraction, when it would immediately relax and a bad hemorrhage follow. I administered a drachm of fluid extract of ergot by the mouth and the same amount hypodermically. I also introduced my hand to the fundus, removing clots and any tissue which might be causing trouble. Had a tenaculum been at hand I should have tried traction on the uterus. Nothing that was done, nor, would it seem, that could have been done, prevailed over the unfortunate condition.

The hemorrhage continued with but little intermission for about an hour, when the patient died.

No one will deny that placenta previa, a shoulder presentation, and finally, uncontrollable post partrim hemorrhage is a good deal to meet with in one case of childbirth.

Case 2. At another time I was called to the same island, a distance of fourteen miles by water, with the report that something was wrong with a woman after childbirth. I found the patient, who had been delivered of her fourth child two days before, in bed in a condition which almost gave me a start. Lying between her thighs was a mass of tissue, of perhaps four pounds weight, of dark red color and somewht dry from exposure to the air for two days. It proved to be no less than a completely prolapsed, partly everted and much swollen uterus.

The husband of the patient, a Scandinavian, who had acted as accoucheur, informed me calmly that he believed the thing to be a part of the afterbirth, and after finding himself unable to *pull it away*, had taken his jack-knife to cut it off! But he had decided to send for me instead.

Considering the length of time the existing condition had obtained, the case did not look encouraging for a good recovery, but I was able, fortunately, to replace the swollen and discolored mass and to retain it in place by a T bandage.

I left her with orders to remain in bed with hips elevated until further instructions. The case made a gradual recovery and in a year she was doing her housework.

NORTHWEST MEDICINE

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Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. AUGUST, 1903. NO. 8

IMPRESSIONS.

In a recent work by Albert T. Schofield many valuable suggestions for an every day practitioner of medicine are to be found relative to the personal equation, if it may be so called, in medicine. This personal equation applies to both physician and patient. It is not so termed by the learned doctor for he leads us through psychological paths and quotes many authors to prove that mind is not only the real active consciousness but also has a subdivision of unconsciousness, or as he calls it, the unconscious or subconscious mind. Now to let the doctor's book and psychology alone.

Impression is a terrible power. An anatomy professor told the story (as true) to his class, that a janitor of a medical school was tried by a number of students, condemned to death by beheading, taken into the basement, his head placed upon a block and a wet cloth thrown over his neck, and the poor old fellow immediately died. Another abbreviated story. Two medical men walking along a country road engaged in conversation about impressions, and one said that he believed he could talk any man into believing that he was sick, and proceeded to attack a healthy man working in the fields, a perfect stranger, who yielded to his persuasions and died in about ten days' time. Upon autopsy being made no physical cause could be found for his death. Probably these were two very susceptible persons.

All of us have such susceptibility held in check by the strength of the conscious power of mind, by a strong physical development, and by suitable mental occupation. Not so fortunate are the hysterical patients who seem to lose all inhibitory power, or those who possess "weak nerves" so to speak, commonly called neurasthenics. Conscious mental action is too weak to control the conscious mind. Let something come up in whatever way to act as a stimulant, catch or hold their conscious mental power and away they go to rapid recovery, and wonder how life could have been possessed of such experiences as they had just passed through. Such power is "faith." No matter in what they may have "faith"—it will nearly always accomplish wonders in the eyes of the laity. The metal ring for rheumatism, Perkins tractors for all ails, Christian Science, faith healing, spiritualism and all other isms, fads, cures and special practices are dependent for the results upon the faith that they stimulate in the patient.

We, as medical men, fail to give our patients the benefit of means directed to stimulation or distraction of the unconscious mind. Not so, however, are the hosts of quacks that thrive in our modern country, who know only too well their own personal shortcomings (educationally) and depend upon the impressions they make upon patients' minds, both for good and bad. Be it said though, that the best educated and mentally the more substantially provided for by the Creator, are less often seen following quackery and the many medical fads. Quacks and many so-called cures by one devise and another cure hysterics and others of that class while we idly sit by and watch them float along, giving one nauseous drug after another in a half-hearted, nonchalant sort of manner as if we had no confidence in what we were doing and of course our patients would have less.

Yet men intended to catch all these subtle points in a patient's makeup are so born that it comes easy to them. Others can not be taught to do so in years. It was the writer's lot to be interne under the man more renowned than any other in hysterical and functionally nervous patients, and it is clear that his success was due to his ability to observe the variations of an unconscious mind, and his personal way, commonly called personal magnetism.

One day in the hospital in making his usual rounds, a very good, very nice and a very religious school teacher, after a period of rest, etc. which did her very little good, broke down and cried every time he tried to speak to her. Finally he exclaimed to her as he left the room "Miss T., you are a d——d fool." She made a most rapid recovery thereafter, and undoubtedly the cure really depended upon her conscious mind being made to discover that her unconscious mind had for a long time made a d——d fool of her.

Nature's powers of healing are a great deal under the control of the mental factor. Pleasant surroundings, good cheer, encouragement, etc. help typhoids and all who suffer from long wasting diseases. There is no doubt that in an extremely weakened condition, where life may depart at any moment, a strong determination to get well will save the day. Possibly even bones knit better with good conscience and good mental hygiene. Do we as doctors realize the possible effect we might have upon a critical case by going with a long drawn face expressive of the end we see in sight and the sorrow we feel for a life about to end? Do we realize that by overly sober and serious words, prompted more by our own ill feelings than by the patient's condition, we may make of him a hypochondriac who will for years fly the flag of misery?

Should we care to be successful practitioners from the point of good we can do let us encourage the patient by words and manner, and let us realize that these things in certain cases are more valuable than drugs. The nurses for nervous cases must be born right and the most successful doctor for similar cases must be born right also. However, let us not all depend upon the right of heredity, but cultivate it as far as possible.

THE SEPTEMBER ASSOCIATION MEETINGS.

The Northwest has rarely been favored with so many meetings of large medical bodies, scheduled so closely together, as will be presented next month. The associations of Washington, Oregon and British Columbia hold their annual meetings within a few weeks of each other. Each plans a program and entertainment that will be attractive to all members and friends who will be present.

It is needless to enlarge upon the benefit every physician derives from annually leaving the scenes of his daily cares and labors, to mingle with his fellows for a few days, for the mutual exchange of ideas. As only a very small percentage of the profession on the Pacific slope ever attends the session of the national societies, usually held in the East, they owe it to themselves to make a special effort to be present at their state meetings. The ancient excuse of being so busy that he cannot leave his practice may serve to impress the laity, but cannot becloud the minds of his fellow practitioners to the fact that the man who never attends his state society meetings is becoming a back number and neglecting his chief opportunity of being aroused from his lethargy.

While we believe every one is bound first to attend and support the session of his own association, we would urge that as many as possible improve the opportunity of visiting one or both of the others. We should foster every means of binding together the profession of the Northwest, whether in different states or provinces. We need to strengthen each other in the advancement of scientific and medical interests, as well as in the cultivation of the social spirit. Let us get together in at least an annual heart to heart gathering. The sacrifice of time and absence from the twelve months' grind will be compensated by the recollections of a few days happily spent, and, perchance, the reception of new ideas.

WASHINGTON STATE MEDICAL ASSOCIATION.

The annual meeting will be held in Spokane, on September 1, 2 and 3. The Committee of Arrangements will maintain the reputation that Spokane has acquired from successful meetings in past years. Those who have heretofore enjoyed the hospitality of the Spokane County Medical Society can testify to its whole-souled character.

As has been customary for several years, the association will entertain a distinguished guest from the East, this year in the person of Dr. Victor C. Vaughn, of Ann Arbor, Mich. His chief paper before the association will be entitled, "The Hygenic and Dietetic Treatment of Chronic Nephritis." He will also deliver a public lecture in the Auditorium on the subject, "Drinking Water and Typhoid Fever."

It is impossible at this date to give a list of papers to be read, but definite promises have been given by physicians of Seattle, Everett, Walla Walla and Portland. These, with others in contemplation, will assure a program of value and interest to all. It is stated that the morning of the first day will be devoted to the transaction of routine business and election of officers for the ensuing year. Therefore, in order to participate in the political features of the meeting, one must necessarily be present at the opening session.

The announcement is made that special attention will be given to the social entertainment of the guests. This will be introduced by a reception in Elks' Hall, on the evening of September 1.

Dinner parties are in contemplation for the evening of September 2, while the wives of Spokane physicians will give a tea for the visiting ladies on the afternoon of September 3.

We trust the attendance at this meeting may be large. Especially would we urge a good sized delegation from west of the mountains, which has been sparingly represented in past years, at many of the meetings held in the eastern section of the state. Let recent years of prosperity be indicated by providing this autumn holiday, on the part of all interested in the success and prosperity of the State Association.

OREGON STATE MEDICAL ASSOCIATION.

The annual meeting will be held in Portland September 29 and 30. At this date definite data are not obtainable concerning the program. Several men of note are expected from the East whose addresses will supplement the excellent papers always presented by members of the Oregon profession. In our next issue we will give at length the information secured as to provisional program and other matters of interest connected with this meeting.

At this time we would especially request the Washington physicians to set aside a few days for a visit to the Portland brethren on this occasion. How many have ever given themselves the pleasure of attending a session of the Oregon society and made the acquaintance of the progressive medical body next south of them? The records will show a very limited number.

The program for the Washington meeting includes papers from several Oregon representatives. We hope to see reciprocity between the two states, indicated by the appearance before the latter of some members from the former state.

THE UNIVERSITY OF OREGON.

It is always a cause for gratification on the part of those interested in the advancement of the best interests of medicine to note the raising of the standards for admission and study by the faculties of the medical schools.

It is announced that the Medical Department of the University of Oregon has taken such a step forward by lengthening the course of study from six to seven months. After the first of January, 1905, four years study in a reputable high school or its equivalent will be required for admission. The greatest improvement in the course of study consists in an increase to the hours of required laboratory work, comprising two hundred and eighty additional hours for the year. This is in accordance with the work of the best Eastern schools which recognize the necessity of supplanting theoretical by practical courses of study.

As the representative medical school of the Northwest we wish this success and prosperity, trusting that its long list of distinguished practitioners in this section may be greatly augmented in the future.

While one often holds in light esteem what comes to him without cost, this judgment is not justified in the case of the Bacteriological Chart prepared by M. J. Breitenbach Co., New York, importers of Gude's Pepto-Mangan. This comprises sixty cuts, in colors, of all the common and many of the unusual bacteria. While in itself a work of art it is also a convenient and useful aid to any one in his bacteriological studies. It will be difficult to find, in any one text book, so many accurate illustrations of pathogenic bacteria.

The chart will be sent free to any physician who will write a request for it to the above mentioned firm.

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Drop a postal to them for literature and samples, and don't forget to say that you saw their "ad." in NORTHWEST MEDICINE.

MANAGING EDITOR.

CORRESPONDENCE.

Editor of NORTHWEST MEDICINE:

It occurs to me that it might be useful to some of our Eastern brethren if you would publish a few choice extracts from the answers to questions asked in the recent examinations.

I refer this communication to our Eastern brothers, not as reflections upon the section from which we all came, but from the fact that over 90 per cent. of our applicants are from that region. I report only on physiology, but other subjects were equally bad.

Reaction of bile, acid.

Reaction of pancreatic juice, acid.

Vibrations of ossicles upon the nerves of the "brane."

Section of pneumogastric would produce paralysis of the brain.

Fibrin is a mass of fibrous elements floating freely in the blood.

Fibrin: A long, minute ingredient of the blood.

Pancreatic juice changes starch to leucin and tyrosin.

Apnoea: Loss of speech for any reason.

So elementary a matter as describing the course of the blood during a cardiac cycle was a great stumbling block. Many of the answers were wrong and many more incomplete. One candidate informs the examiners that of course he has forgotten, as he graduated in 1868. His frank avowal would certainly not be accepted in lieu of elementary knowledge.

Section of the recurrent laryngeal nerve would produce paralysis of the tongue and "Esofagus." "Would destroy the taste for sweets."

Some choice specimens of orthography follow: *Gass; oxigen;* the *corse* of the blood; *do* for due; *corpussles; oricle; oracal; ventricil; foramin OVally; paralycis; eregular.* "Vim passes out through the naval." Sound passes into the ear and through the *ustakian* tube into the brain.

Far be it from me to belittle medical ability because of deficient orthography, but this deficiency is strikingly associated with a lack of medical knowledge.

It would seem to be an act of kindness if Eastern editors would copy the above and append thereto the information that if a man or woman is conscious of such glaring deficiencies as the foregoing, they should stay away from the State of Washington. The people want the best of everything, they expect the board of examiners to protect them from medical imposition so far as possible. Our advice is that if such a series of questions as follow cannot be answered, save your money and our time by holding onto what you have. There will be no room for you in Washington.

F. H. COE,
Pres. Wash. State Board of Medical Examiners.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. P. SWEENEY, M. D.; Secretary, CARL HOFFMAN, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of July 6, 1903, President Sweeney being in the chair. Twenty-four members and ten visitors were present.

Drs. J. E. Stevens and H. M. Read were elected to membership. The first paper of the evening was read by Dr. F. A. Churchill, entitled, THE SYMPATHETIC NERVOUS SYSTEM (to be published later.)

DISCUSSION.

Dr. Miles said the paper was of interest and complete. It calls to mind things we have forgotten with reference to the sympathetic nervous system. It is an appropriate subject at present, when operations on the nerve are being conducted to relieve some pathologic eye conditions.

Dr. Stillson expressed himself as especially pleased with the discussion of the connections of the sympathetic ganglia. Those of the heart constitute the brains of the heart, as important as the brain to the body. This system also provides the brain for other organs, as that for stomach, liver and kidney coming from the solar plexus. The importance of this to these organs and the manner that its disturbance may disarrange them is illustrated in the solar plexus blow. Operations involving the removal of the ganglia are not yet in a settled state. He questioned the accuracy of some hospital reports on this point. Yet there is a future for this line of surgery.

Dr. Read referred to the importance of the sympathetic system in the animal economy. It presides over the supply and demands of metabolism. It is of the greatest importance in the physiology of the heart and stomach. The doctor was much pleased to hear papers of this character, being both instructive and useful.

In closing, Dr. Churchill mentioned the composition of the solar plexus being the same as that of the brain, and a blow on it is analagous to a concussion of the brain.

The second paper of the evening was read by Dr. R. W. Perry, entitled, HYPODERMIC INJECTION OF PILOCARPIN (to be published later).

DISCUSSION.

Dr. Pontius believed the views of the essayist correct. He did not think pilocarpin has any effect in iritis where adhesions have formed. After a few days it is necessary to increase the dose to produce sweating. He recently had a patient who failed to perspire after receiving a quarter-grain of the drug.

Dr. Lewis thought our knowledge of the uses of pilocarpin limited. He was familiar only with it in connection with eclampsia. He had seen it used frequently here with only good results.

Dr. Winslow remarked that it is necessary to keep the body hot in order to get the best results from its use.

Dr. Carroll described a case of eclampsia in which he obtained good results from the drug in connection with the hot pack. He had seen it recommended in pneumonia, where the skin is very dry, but he had never tried it.

Dr. Miles mentioned its use in erysipelas. He had thus tried it in several cases, but not with satisfaction. He described a case of eclampsia, where he had been called in consultation, in which it had been given before his arrival. The lungs were water-logged, but atropin cleared them.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of July 20, 1903, President Sweeney being in the chair.

Twenty-five members and visitors were present.

The name of Dr. N. D. Pontius was proposed for membership.

CLINICAL CASES.

Dr. Ewdards presented three children found by the humane office a week ago, whom Judge Morris consigned to the care of the county commissioners. The oldest was a boy of six years, with open mouth, thick tongue, too large for the mouth. He was stupid, could not talk; about the size of a four-year-old boy. The second, a boy of nineteen months, presented a similar condition. The third, a baby girl, was brighter than the others.

The teeth were very poor in all the children, the eldest having only two upper and two lower. The second presented an open anterior fontanelle about a half inch in size; in the youngest it was smaller.

They were removed from the parents because they seemed to have no idea how to care for them. The father is 52 years of age, an old soldier and formerly a school teacher.

The doctor had been unable to trace a syphilitic history in the parents.

The children were examined by the members. Drs. Read, Loughary and Pontius expressed the opinion that all suffered from hereditary syphilis and that they would improve on mercury and iodide of potash.

Dr. De Beck gave the address of the evening on RHEUMATIC CHORODITIS, illustrated by original sketches of a case recently under treatment.

Discussion followed by Drs. Reed, Pontius and Hawley.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. I. HOLT, M. D.; Secretary, F. J. VAN KIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in the library room of the Odd Fellows' Hall, July 13, 1903.

Eleven members and nine visiting physicians were present.

The minutes of the last meeting were read and approved, and current expense bills laid over until next meeting.

The communication from the Whatcom Commercial Club requesting the society to contribute fifty dollars toward the expense of entertaining the coming Bankers' Association, which will meet in the city on July 24-25, was by motion of Dr. Smith laid upon the table.

An invitation from the secretary of the State Medical Society urging the attendance and requesting a paper from members of the society was read. No action was taken.

The programme of the evening consisted of a paper by Dr. Ernest A. Hall, of Victoria, B. C., entitled "EXPERIENCES IN THE TREATMENT OF PELVIC DISEASES IN THE FEMALE INSANE." The doctor handled the subject in an able manner. The paper showed experience and careful preparation, and was listened to with marked attention. General discussion followed.

The meeting adjourned to the Vienna Cafe for refreshments and social entertainment.

RECENT PROGRESS IN MEDICINE AND SURGERY.

SURGERY.

Edited by

J. B. Eagleson, M. D., Seattle.
K. A. J. Mackenzie, M. D., Portland.
E. E. Heg, M. D., Seattle.

Operations For Gall Stones. (By Hans Kehr, Extract Annals of Surgery, July, 1903.)

Since 1890 Kehr has performed 720 operations for gallstones on 655 patients and as a result of his experience in these cases, he draws the following conclusions, viz:

1. He believes that medical treatment produces a latent condition in many conditions, and in some even a cure.

2. Reidel's dictum to remove the stones as soon as discovered holds now as well as in the past, for it protects against many of the dangerous sequels of gallstones. Such an early operation can not always be done in practice, hence Riedel's advice is of little practical value.

3. If the attacks are mild and there is complete latency between them, he advises against operation.

4. Acute closure of the common duct is with few exceptions to be treated medically. If the symptoms of cholangitis become prominent, and the icterus is accompanied by emaciation and anorexia for some time an operation is to be considered.

5. Frequent colics without icterus, or passage of stones, if they cause invalidism, are an indication for an operation.

6. Cases of icterus with passage of stones during each attack are an indication for medical treatment, but if they are very frequent and the patient seems to be failing, and there is no prospect of all the stones being passed, he would operate.

7. Hydrops and empyema of the gall bladder as well as pericholecystic suppuration are in the province of the surgeon.

8. Chronic closure of the common duct should not be allowed to exist too long if a Carlsbad cure has been of no avail.

9. Patients with gallstones who have become victims of morphine should be operated upon under all circumstances. During the after treatment the morphine habit can be cured.

10. Only early operations are of any benefit in carcinoma of the gall bladder, and these are seldom operated upon early.

11. Patients with chronic icterus, which are not dependent upon a stone in the common duct or incurable diseases of the liver, should be operated upon within three months at the latest, since one will often find a chronic interstitial pancreatitis instead of a suspected carcinoma of the head of the pancreas.

12. Both patient and surgeon will be more easily influenced to operate when a gall bladder tumefaction, an enlarged liver, jaundice and

fever are present. But even in the absence of local findings, the continuance of severe symptoms is an indication *per se*. One often finds in such cases adhesions without stone.

13. The sequelae of gallstones, such as suppurative angiocholitis, abscess of the liver, perforative peritonitis, subphrenic abscess, severe pyloric and duodenal stenosis as well as ileus due to gallstones, all demand surgical interference.

14 Every case is a unit in itself. Obese patients do not bear operations well. Chronic nephritis, diabetes, arteriosclerosis, pulmonary and cardiac diseases are a contraindication to operation.

EAGLESON.

APPENDICITIS AS AN INCIDENT IN DEVELOPMENT. (By Woods Hutchinson, A. M., M. D., American Medicine, August 1st, 1903.)

In this most excellent article Hitchinson develops the theory that attacks of inflammation in the appendix in man are merely incidents in nature's normal process of atrophy, which will ultimately terminate in complete obliteration of this useless and supernumerary organ. He traces the formation of the appendix from the gradual contraction of the lower third of the cecum in the lower animals until it becomes a useless organ in the human anatomy. He looks upon the cecum as an organ for absorption and as the class of foods devoured become more easily digested as we progress from the lower to the higher orders of animal life, the cecum grows smaller. The same is true in man. The appendix is larger in proportion to the cecum in fetal life and gradually diminishes until in later life the lumen of the organ is cast of from the gut or completely obliterated in an increasing percentage with the age of the individual.

"By the thirty-fifth year this has reached 25 per cent. of all cases; by the forty-fifth year nearly 50 per cent. are found to be occluded; by the fifty-fifth year 60 per cent., and by the sixty-fifth year nearly 70 per cent. When the surgeon removes the appendix he is merely hastening and assisting a process of nature.

"In a word, I think the survey of the conditions of the cecoappendix in different forms of life points irresistably to the conclusion that in our own ancestry, beginning as a large, voluminous, and actively functional pouch, the concentration of nutritive qualities of the food supply; the dropping of the purely herbivorous or graniverous diet in rodents; the acquisition of a diet of chiefly plant, nuts, insects, small birds and their eggs in the lemur and in the monkey, and finally of a diet almost purely of nuts, fruit, and small birds in the anthropoid apes, have resulted in its constant and steady diminution in size and importance, and unfortunately for us, in the last two steps of the process in a markedly disproportionate degree of recession in the distal two-thirds of the pouch.

As has already been said, this process can be traced in each individual in the embryo, beginning at about the stage of development normal in Old World monkeys and continuing, not merely until birth and maturity, but even to the day of our death in the direction of eliminating and completely obliterating a superfluous and no longer useful part of our alimentary tract. Nature is the strictest economist known, and any remnant of tissue, no matter how insignificant, which no longer serves a useful purpose in the struggle for existence, is sooner or later doomed to complete extinction. Our function as a profession is as usual merely that of a hand-maid to Nature; first, intelligently discovering what she intends to do, and second, helping her to the best of our ability." EAGLESON.

RUPTURED CRUCIAL LIGAMENTS AND THEIR REPAIR BY OPERATION. (By A. W. M. Robson, Annals Surg., May, 1903.)

The author reports a case of rupture of crucial ligaments of right knee occurring from an accident in a coal pit in 1895. With muscles relaxed the tibia dropped back until stopped by ligamentum patellae. Head of tibia could be brought in front of femur and there was very free lateral motion.

The joint was opened by semi-circular incision from internal to external condyle, and both crucial ligaments found ruptured. The anterior was fastened by catgut to synovial membrane and tissues on inner side of external condyle, and the posterior being too short, it was split and fastened to the synovial membrane and cartilage on outer side of the internal condyle, and wound closed. After the wound had healed the joint was enclosed in plaster splint for one month. Six years later the knee was examined and the result found to be excellent, patient having been able to perform his work from the time of discharge from the hospital. There was practically no deformity and only a slight limit of flexion. Extension was perfect. The joint was slightly larger than the other and slightly more liable to pain in cold, damp weather. HEG.

SPLENIC INFECTIONS (By Albert L. Stavely, M. D., Annals Surg., June, 1903.)

Infections of the spleen may occur from entrance of septic material through external wounds or from migration of intestinal bacteria when the spleen is contused and the skin remains intact, or from inflammations of surrounding organs or tissue by contiguity. Abscess may result from imported infection through septic embolus, from tuberculosis, perenephritic abscess, pyothorax, pulmonary abscess, appendicular abscess or from pyogenic organisms of necrotic areas, as in typhoid fever. It is rare in malarial fever.

Abscess may be single or multiple; pus, dirty red or chocolate colored—ordinarily, but may be like ordinary pus.

Constitutional symptoms are similar to any other abscess. Local symptoms are swelling, fluctuation, tenderness and a peritoneal friction sound. Pain may be severe, sharp and radiating, or dull and diffused or absent. Prognosis of undisturbed splenic abscess is bad. Spontaneous external rupture has been reported. It may rupture and empty through the intestinal tract, peritoneum, pleura or kidney.

The treatment is incision and drainage, and he reports two cases, one of splenic abscess where the diagnosis was made by exploratory incision, which was treated by lumbar incision and drainage, with recovery. The other was of spleen infected by staphylococcus pyogenes albus and bacillus communis coli, with a marked perisplenitis, which was treated by splenectomy, with recovery. HEG.

DISEASES OF CHILDREN.

Edited by

G. B. McCULLOCH, M. D., Seattle. G. S. HICKS, M. D., Tacoma. C. B. FORD, M. D., Seattle.

TEMPERATURE IN SUMMER COMPLAINT. (By William F. Waugh, M. D., New York Medical Journal, July 18, 1903.)

The writer mentions two classes of cases, giving symptoms and treatment for each.

In the first class one finds subnormal temperature in axilla, perhaps one degree of temperature in rectum, profound depression and relaxation, skin pallid and moist, eyes sunken and half-closed, abdomen depressed, and the whole aspect of the child nerveless and relaxed. In this condition he gives atropine until decided effects are produced—dryness of mouth, flushed face, or dilation of pupils—then follows with brucine in very small doses, cautiously repeated until tonicity of pulse has been re-established. This followed by proper attention to diet and condition of alimentary canal, usually completes a cure.

In the second group we have elevation of temperature, contracted pupils, restlessness, child continually tossing and jerking, almost on the verge of convulsion. Give calomel 1-20 grain with bismuth subnitrate, 1 grain every quarter-hour until 5 to 8 doses are taken. Wash out bowels, control pulse with aconite, or, if renal excretion is diminished, use veratrine, 1-134 grain dissolved in one and one-half ounces of water. Give teaspoonful every quarter to every hour. Follow with zinc sulphocarbolate 1-6 to 1 grain, with bismuth and pepsin every quarter-hour until danger is past. Reduce temperature by cold.

McCULLOCH.

TREATMENT OF INFANTILE CONVULSIONS. (By Drs. A. Goldhammer, O. C. Tarbox and Huff, N. Y. Medical Journal, March 21, 1903.)

Each writer gives most frequent cause of convulsions and describes his method of treatment.

Dr. Goldhammer states that the most frequent cause of infantile convulsions is reflex irritation from gastrointestinal canal, next fevers, meningitis, otitis, pneumonia, acute erruptive diseases, nephritis, rickets and phimosis.

Treatment: First stop muscular spasm by applying hot mustard bath or mustard pack to lower extremities and cold to head. Inject 3 grains chloral, in starch water, in rectum of child 1 year old. If these means fail use chloroform, irrigate bowels with water to which has been added castor oil or turpentine; administer castor oil or calomel. Resorcin or salol may be combined with calomel. Where fever is high, give antipyretic and sponge with cold water. If from kidney disease, free sweating by hot pack and pilocarpin combined with alcohol. When difficult to attribute to any one cause he gives the following:

R—Soda bromide ....gr. 48
Tr. Hyoscyamus

Camphorated tr. Opii, aa.................mm. 90
Syr. Bilberry ....oz. ½
Aquae q. s. ad............................oz. 2

Sig.: One dram every 2 hours for child 1 year.

Dr. Tarbox insists that the physician should have a clear idea of the etiology of convulsions, as the treatment varies with the cause. He gives chills, exanthemata, infectious diseases, nephritis; reflex causes, such as undigested food; dentition, phimosis, intestinal worms, drugs, meningitis and other diseases of central nervous system. The physician should respond promptly when called to cases of convulsions, and search diligently for the cause. When due to undigested food give castor oil, holding tongue well down and introducing oil well back in throat. If dentition is at fault, lance the gums. Next use ice pack to head. Give warm bath or hot mustard foot bath, with mustard plaster to legs and thighs. Give enema of soap and water. Next give soda bromide, 2 to 5 grains, by mouth, repeated every half or every hour, as indications warrant. If convulsions continue, it is probable they are due to cerebral inflammation, and bromide and chloral are safest drugs to use. Morphin and chloroform are positively dangerous. Lumbar puncture may be tried, allowing a small amount of cerebrospinal fluid to escape.

Dr. Huff says our first thought should be that the convulsion is not a disease, but a symptom of disease. Ascertain the starting point, progress, duration, severity and frequency of same. Consider predisposition to convulsions from irritation of nervous system, direct, as in cerebral meningitis, tumor, etc., reflex, as from undigested food, or toxemic, as in scarlet fever and other exanthemata.

Treatment: Remove cause if possible. Give an emetic to clear stomach, an enema and calomel to clear bowels. Obtain a quiet and darkened room. Give child bath of 90 to 95 degrees, with cold to head, rubbing while in bath. Or give mustard pack 1 dram to 1 quart of water. Wet towel in it and wrap around child. Give cleansing enema; follow with enema containing chloral hydrate 3 grains for child one year old. For immediate relief give inhalation of chloroform. If convulsion seems to be a symptom of approaching death, give whisky and strychnin. After treatment: Regulate diet, correct constipation and give abundance of fresh air and sunshine. McCulloch.

TREATMENT OF ACUTE DIARRHEAS OF INFANCY. (By Dr. John Lovett Morse, of Harvard Medical School, American Medicine, May 2, 1903.)

Dr. Morse divides the above subject into two classes: Those of nervous origin and those due to micro-organisms. Those of nervous origin manifest themselves by increased peristalsis; due, first to conditions acting through central nervous system, such as prolonged cold or heat, fatigue or fright; second, to mechanical action of undigested food. The chief danger is the increased susceptibility to micro-organisms.

Treatment: When diarrhea is due to fatigue or fright, quiet and rest; when due to temperature, change of climate; when due to undigested food, castor oil or calomel. If then it does not cease, control peristalsis with paregoric or tannalbin, gr. iii to v. If excessive peristalsis is due to weakness, give brandy.

Infective diarrhea is due to entrance of various kinds of micro-organisms into the intestinal tract, but as yet the examination of stools affords but little information as basis of diagnosis or treatment. Also the severity of symptoms is often no index of degree of pathologic changes. Constitutional symptoms are due to lack of nourishment, abstraction of fluids and absorption of toxins. Symptoms of toxin poisoning: Reflex vomiting, elevation of temperature, prostration and nervous excitement.

Prophylaxis: Sterile food, plenty of sterile water. Give less food during hot weather. Remember that sterilizing or pasteurizing milk does not destroy the toxins which may be present in it; it merely prevents formation of more. Napkins to be immediately disinfected in order to prevent reinfection.

He divides the infective diarrheas into three classes: Fermental, ileocolitis and cholera infantum. Fermental discharges may be all shades of green, watery, frothy, containing curd or mucus, rarely blood, and may be sour, slightly offensive or very foul. Two classes are recognized, the acid fermentative and albuminoid decomposition. The first is supposed to be due to bacteria which thrive on sugar, and the second to those that thrive on proteid. This division is of no practical value.

Treatment: Remove micro-organisms and toxic products by castor oil; if vomiting, by minute doses of calomel. In severe cases wash stomach and bowels. Use normal salt solution or 2 per cent. solution boric acid. Cut off all food for 24 hours, giving only sterile water, but the child must have food. If the stools are very sour exclude all sugar and give only proteids. There seems to be a feeling that milk is unsuitable on the ground that bacteria thrive better in it than in any other medium. This argument hardly seems sound. No one would think of choosing milk to grow these same bacteria in in the laboratory. They choose preparations of meats or carbohydrates, the very materials from which the substitutes for milk in these cases are made. "Clinically, nevertheless, these patients do seem to do better when they are fed for a time on something beside milk." If diarrhea is due to acid formation do not give barley water or other cereal decoctions, but beef broth, albumen water. McCULLOCH.

BOOK REVIEWS.

Edited by
KENELM WINSLOW, M. D.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and especially prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners by leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., Montreal; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., Boston; E. Landolt, M. D., Paris; Thomas G. Morton, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh, and John Harold, M. D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. J. B. Lippincott Company, Philadelphia and London. Cloth, $2.00. Vol. 2, 13 Series. Pp. 3111. 9½x6⅜ in.

The latest number of this well-known quarterly, reflecting the views of the leaders in medical progress, contains some valuable and interesting contributions. First among these is the consideration of pancreatic disease, the symptoms and treatment by Opie of Johns Hopkins —who has just issued a book on the subject—and the diagnosis and surgical treatment by Deaver and Muller, of Philadelphia. The latter report 6 cases of chronic pancreatitis diagnosed and operated upon, with 5 recoveries. The disease of the pancreas was determined in most of the cases by local pain and tenderness, combined with symptoms of gall stones, with which the pancreatic trouble was often associated, the appearance of a large shade with the fluoroscope in the region of the gall bladder which did not move with the movements of the diaphragm and represented the enlarged head of the pancreas and was sometimes overlaid by another movable shadow, a distended gall bladder. The usual clinical tests for free fat in the stools, undigested meat-fibre and glycosuria were not constantly present. There is a most instructive and encouraging group of cases of this rare disorder with an account of two pancreatic cysts, one recovering after operation, the other refusing the knife.

There is also a timely symposium on Summer Diarrhea of Children. The use of small doses of salicylates by local injection receives convincing arguments at the hands of Bouchard. Heart disease in its various phases is considered by Satterthwaite, Poynton and Bishop in a most thorough manner.

There are two excellent clinical lectures, one by Geo. W. Gay, of Boston, on The Diagnosis and Treatment of Hemorrhoids, and the other on Abdomino-Pelvic Diagnosis: Abdominal Swellings, by E. Stanmore Bishop, F. R. C. S. A thorough and detailed description of the

Rest Treatment receives careful description by John M. Taylor, formerly associated with Weir Mitchell. The department of Pediatrics contains an article on Cirrhosis of the Liver in Children, with beautiful plates explanatory of the pathology.

Obstetrics and Gynecology are represented by three articles on The Causation and Sterility in Women, Ectopic Gestation, and The Significance and Some Suggestions Regarding the Treatment of Cervical Lacerations. Under Ophthalmology is to be found a very practical paper by Prof. Landolt, on Surgical Intervention in Paralysis of the Ocular Muscles. WINSLOW.

PLAIN HINTS FOR BUSY MOTHERS. (By Marianna Wheeler, Superintendent of the Babies' Hospital, New York. With illustrations in outline. 35 cents. pp. 54. E. B. Treat & Co., publishers, 241-243 23rd St., New York.)

This pamphlet is one of the host of similar emanations from the press which are intended to mitigate popular ignorance in reference to the baby. "Busy Mothers" should not be so busy as not to have time to secure proper treatment for their progeny, otherwise their busyness will increase. Under "emergencies" we find for example ear abscess treated in such a frivolous, touch-and-go manner as to properly scandalize an aurist. Ear abscess "if taken in hand, is curable in short time," we read, " by syringing every time discharge is noticeable." In like manner would the pediatrist have his mental equilibrium jarred to learn that the whole philosophy of modified milk resolves itself—in this book—into diluting whole milk with water, beginning with a 1 to 8 dilution and diminishing the water somewhat as time goes on. The booklet does indeed contain some useful and sensible advice about the general health of babies, fresh air, bathing and clothing; and the application of diapers and "booties" is admirably described. It is undoubtedly thoroughly suitable for the use of busy mothers of the laboring class whose mental calibre is well adapted to the character of the work under discussion. WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

To the Washington State Board of Health for July, 1903.

COUNTIES.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams	0	0	0	0	0	0	2	1
Clallam	0	1	0	0	0	0	0	0
Clark	3	0	0	0	0	0	0	0
Columbia	7	0	0	0	0	0	0	0
Cowlitz	13	0	1	0	0	0	0	0
Douglas	0	0	13	0	0	0	0	0
Jefferson	0	0	0	0	1	0	0	0
King	1	1	16	1	5	1	1	0
Kittitas	0	0	0	0	3	0	0	0
Klickitat	0	0	1	0	0	0	1	0
Lincoln	0	0	0	0	1	0	0	0
Okanogan	1	1	0	0	0	0	0	0
Spokane	0	0	3	0	0	0	0	0
Snohomish	0	0	1	0	0	0	0	0
Thurston	4	0	0	0	0	0	0	0
Whatcom	2	0	0	0	2	0	2	0
Whitman	1	0	0	0	0	0	0	0
Walla Wala	14	0	0	0	0	0	0	0
Yakima	1	0	1	0	0	0	1	0
Seattle (city)	4	2	33	4	3	1	2	2
Spokane (city)	5	0	5	0	1	1	0	0
Tacoma (city)	0	0	7	1	5	0	0	1
Total	56	4	82	6	25	5	10	4

The smallpox situation shows great improvement this month. Clark county report shows the county free from the disease at the end of the month. The only extensive new outbreak reported is in Cowlitz county, where it has undoubtedly existed some time unrecognized on account of the extremely mild form.

Physicians generally are very dilatory about reporting typhoid fever and consumption, which we trust the county health officers will see is remedied when they become more familiar with their duties.

Elmer E. Heg, Secretary.

MEDICAL SOCIETIES.

NAME. MEETINGS HELD.

Washington State Medical Association..........Sept. 1, 2, 3—Spokane

President, Chas. McCutcheon, M. D.; Secretary A. H. Coe, M. D.

Chehalis County Society..........Second Tuesday—Aberdeen

President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

King County Society..........First and Third Monday—Seattle

President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

Pierce County Society..........Second and Fourth Tuesday—Tacoma

President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.

Skagit County Society ....

President, F. B. West. M. D.; Secretary, C. C. Harbaugh, M. D.

Snohomish County Society..........First Thursday—Everett

President, J. R. Hathaway, M. D.; Secretary, C. A. Mead, M. D.

Spokane County Society..........First Thursday—Spokane

President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.

Walla Walla County Society..........Second Wednesday—Walla Walla

President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.

Whatcom County Society..........Second Monday—Whatcom

President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

Whitman County Society ....

President, Wilson Johnston, M. D.; Secretary, H. B. Clough, M. D.

Yakima County Society..........First Tuesday—North Yakima

President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.

Oregon State Medical Association..........Sept. 29 and 30—Portland

President, H. W. Coe, M. D.; Secretary, A. D. Mackenzie, M. D.

City and County Medical Society of Portland..........First Wednesday—Portland

President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.

Multnomah County Medical Society..........First Tuesday—Portland

President, E. M. Crockett, M. D., Secretary, L. Victoria Hampton, M .D.

Montana State Medical Association.......... May 18 and 19, 1904—Butte

President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.

Silver Bow Medical Society..........Second and Fourth Wednesdays—Butte

President, Donald Campbell, M. D.: Secretary, J. A. Donovan, M. D.

Idaho State Medical Association..........Oct. 8 and 9—Boise

President, George Collister, M. D.; Secretary, E. E. Maxey, M. D.

Northern Idaho District Medical Society..........June 9—Lewiston

President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.

Southern Idaho District Medical Society..........July—Hailey

President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.

British Columbia Medical Association..........September—Victoria

President, O. M. Jones, M. D.; Secretary, C. J. Fagan, M. D.

Vancouver Medical Society..........Vancouver

President, R. C. Boyle, M. D.; Secretary, J. S. Conklin, M. D.

New Westminster Medical Society..........Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal.

SEATTLE NURSES' BUREAU

If you need the services of a Graduated Nursecall on the Superintendent

MRS. A. W. HAWLEY

1702 Summit Avenue, or Phone John 411, and she can supply you on short notice.

Graduated Nurses' Association

NAME.	QUALIFICATION.
BEAN, MISS ALTA	Graduate Grace Hospital, Detroit.
BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L.	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M.	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
CONNELLY, MISS LOU	Graduate Asbury Hospital, Minneapolis.
CUDHIE, MRS. M. A.	Graduate St. Luke's Hospital, St. Louis.
CROWL, MISS FLORENCE I.	Graduate Seattle General Hospital.
DAM, MRS. EVA L.	Graduate Seattle General Hospital.
DE VECKMON, MRS. E.	Graduate Seattle General Hospital.
FREMMING, MISS THORA H.	Graduate City and County Hospital, St. Paul.
FEEHAN, MISS ANNA	Graduate St. Joseph's Hospital, St. Paul.
GREEN, MRS. ANNIE G.	Graduate Good Samaritan Hospital, Portland.
GREGG, MISS MINNIE	Graduate Women's Hospital, Syracuse, N. Y.
HUGHES, MISS M. A.	Graduate Dublin General Hospital.
HUBBS, MRS. F. H.	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E.	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
KENNEDY, MISS	Graduate St. Luke's Hospital, Duluth; Sloan Maternity, New York.
LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B.	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W.	Graduate Royal Jubilee Hospital, Victoria.
RAY, MISS JENNIE	Graduate Seattle General Hospital.
SHROEDER, MISS H. L.	Graduate Seattle General Hospital.
SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
SLATER, MISS MAME	Graduate Eastern Illinois Hospital.
SHIACH, MISS MARY	Graduate Seattle General Hospital.
STRAHL, MISS INEZ	Graduate Asbury Hospital, Minneapolis.
STRONACH, MISS MINNIE	Graduate Brompton Hospital, London.
WAGNER, MISS IDA	Graduate Riverside Hospital, Milwaukee.
WANAMAKER, MISS NIDA	Graduate Seattle General Hospital.

CHARLES McCUTCHEON, M. D.
President Washington State Medical Association, 1902-1903.

NORTHWEST MEDICINE

September, 1903.

PRESIDENTIAL ADDRESS, DELIVERED BEFORE THE WASHINGTON STATE MEDICAL ASSOCIATION, AT SPOKANE, SEPT 1, 2 and 3, 1903.

By Charles McCutcheon, M. D.,

TACOMA, WASH.

I desire to thank you from the bottom of my heart for the great honor you conferred upon me in electing me your president—the highest honor, in a professional way, that can come to any man. I accepted it from your hands, feeling that it was rather a recognition of the goodwill I have always tried to foster among my medical brethren, rather than a proof of professional ability. Fellowship and goodwill are the bonds that should unite us. Let us practice them.

In the reorganization of our State Medical Association and the adoption of a new constitution, the duties of the president are simply stated. He shall preside at its meetings and give an annual address. I am sorry that the section recommended by the American Medical Association covering the duties of the president was not adopted by ours. In addition thereto it says, "He shall be the real head of the profession in the state during his term of office, and, as far as practicable, shall visit by appointment the various sections of the state, assist in building up county societies and in making their work more practical and useful." While the above quotation was not adopted, I gather from the partial adoption of the reorganization scheme, recommended by the American Medical Association, that the duties of the president are so implied if not so expressed in our state constitution. And I trust that my successor in office will see his duties in this light and perform them. There is a wide field for him. By keeping in touch with all that is going on in our local county societies, he will be in a position to advise, stimulate interest, promote harmony among us, and fraternization between members of adjoining county societies.

He should be to the medical profession in the state what the grand master is to the fraternal societies. His annual address should be one of the first business features at the annual meeting, instead of being relegated to the last.

Having the best purview of all matters medical in the state, his annual address should cover matters relating to the welfare of the profession, with such recommendations for action as may seem to him proper, which should be referred to appropriate committees for consideration.

I have been looking over the annual addresses of some of my predecessors, and I fail to find that any of them received more than slight consideration at the hands of this society. Why, therefore, do you want me to address you?

I, nevertheless, have some recommendations to make. In the report of last year's meeting the secretary published the names of all our members. In all subsequent publications I would recommend that an additional page be published, giving in chronological order the names of the officers of this association from the date of its organization.

A few years ago this association appointed a committee on tuberculosis, which did excellent work. Last year fifty dollars was appropriated to its use. Why should not this committee be continued? This association is asked by the American Congress on Tuberculosis to appoint fifteen members as a commission to represent our association at the international congress, which will be held in Washington in April, 1905. What shall we do in the premises?

This association should have a committee on legislation. The American Medical Association has organized a "National Auxiliary Congressional and Legislative Committee." It asks that one member be appointed from each county in the state. Since we are so far away from the seat of congressional action such a committee might be of little help, still I think we ought to have a state committee of responsible physicians whose judgment and common sense can be relied upon, and to whom all matters regulating the practice of medicine should be referred.

Under our system of government every man who is elected to the state legislature feels and believes that he is a "born statesman." The result is that we, who live near Olympia, find that we are compelled to watch what is being done by those legislators who are friendly to regular medicine as closely as its enemies. All medical legislation of a friendly nature should issue from a committee representing this association, and from no other source.

My predecessor, Dr. Bean, recommended that the state society should bear the expense of prosecuting illegal practitioners. That his recommendations were not followed is, as I have pointed out, chiefly due to the fact that they were made just as the meeting was about to adjourn. Illegal practitioners should be prosecuted, but by whom? This is a question that this association should answer.

I think we have a fairly good law as it is, and that illegal practitioners can be easily convicted under it. I do not believe that we are called upon, as a society or as individuals, to prosecute such charlatans as faith curists, healers, Christian Scientists and others of that ilk. These must be left to the better educated instincts of future generations. The education of the public in fundamental truths will alone suffice to extirpate these evils. Do not prosecute them for practicing medicine illegally. They are not practicing medicine; they are simply swindling the public and so long as the public prefers to be swindled we will get no thanks for interfering. The State Board of Health should be authorized by law to abate such nuisances.

Is it not an astonishing fact that, while we have unquestionably in our country the best of all systems of education, and that physiology and hygiene are attempted to be taught in all our public schools as nowhere else on earth, yet the average American of today is to listen to and believe the most absurd theories of disease and its treatment? Something is certainly wrong. Should not this association take the matter up and, by propaganda, disseminate correct information along these lines, similar to the very excellent statement gotten up by the committee on tuberculosis? Much good can be done by popular lectures such as given by Dr. Flexner in Tacoma a year ago, and by Dr. Vaughan in Spokane.

I congratulate the society on the work of the last three sessions, each one better than the former, the present one the best of all. This exceeds all former meetings in the number of attendants. The association is to be congratulated when it is considered that about thirty members have traveled over four hundred miles to attend the meeting.

Again I thank you for the great honor you have conferred upon me.

ORIGINAL CONTRIBUTIONS.

THE HYGIENE AND DIETETIC TREATMENT OF CHRONIC NEPHRITIS.*

By VICTOR C. VAUGHAN, M. D.,

ANN ARBOR, MICH.

No attempt to classify the different forms of chronic nephritis has been satisfactory, and in many respects our knowledge on this subject, although much more extensive in detail, is quite as confused and perplexing as it was when Richard Bright finished his work in the first half of the nineteenth century. Omitting the acute form, Bright was of the opinion that there are two distinct diseases: (1), the large white kidney, and (2), the red granular, or cirrhotic kidney.

Frerich taught the unity of Bright's disease, or inflammation of the kidney, and held that there are three stages: (1), hyperemia, (2), exudation, and (3), atrophy. The first of these stages is that of congestion, leading to increased size, especially marked in the cortex, and accompanied by extravasation into the Malpighian bodies, tubular and kidney substance, while the epithelium of the tubules remains unaffected or but slightly altered. In the second state the congestion is less active, but the exudation continues, and *the exudate in the kidney substance* is converted into fibrous tissue. The tubular epithelium undergoes granular and fatty degeneration, obstructs the lumen and dilates the tubules; thus the size of the organ is increased, the cortex appears yellowish-white, and the surface is smooth or slightly granular. In the third stage there is more or less contraction, the organ being reduced to the normal size or less, while the density of the tissue is increased on account of the conversion of the exudate into connective tissue. The surface is granular and the capsule adherent.

Virchow first proposed a classification based upon the special structure in the kidney principally involved in the pathological process. This has been developed by pathologists and a classification now frequently given as the following: (1) Parenchymatous nephritis, (2) Glomerulonephritis, (3) Interstitial nephritis, and (4) Ateriosclerosis. It should always be understood that in no instance are the pathological changes confined exclusively to one histological element. For example, the difference between parenchymatous and glomerulonephritis lies in the extent to which the glomeruli are involved, and in every parenchymatous nephritis changes more or less marked are to be found in the stroma; likewise in every advanced case of interstitial nephritis the tubular epithelium and the glomeruli are more or less altered. I mention these facts in order that we may understand that this anatomical classification of chronic Bright's disease is by no means satisfactory.

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*Read before the Washington State Medical Association, Spokane, Wash., September 1, 2 and 3, 1903.

Then, there is the question whether in chronic Bright's disease the pathological changes begin in the kidney or elsewhere in the body. Is the affection primarily a local one, or is it the result of changes in the blood? A few clinicians, as Graves, of Dublin, and Sernmola, of Naples, held that chronic Bright's disease is secondary to constitutional disturbances. Indeed, we may ask whether albumin appears in the urine because the kidneys are diseased, or are the pathological alterations in the kidney due to the acquisition of poisonous properties by the proteid molecule in the circulating blood.

There are facts that go to support the second possibility suggested in the question, and these may be stated as follows: The blood serum of certain animals. when injected into individuals of another species, causes marked degenerative changes in the kidneys, and may lead to albuminuria and even cause the symptoms of uremia. The toxicity of the blood serum as manifested by its action on the kidney is widely variable in different animals, and the same is true of the susceptibility of the renal cells to blood serum. The blood serum of eels has been found to have a pronounced action on the kidneys of experimental animals. The poisonous action of blood sera on renal cells is destroyed by moderate heat, and the toxin is largely removed by dialysis. These facts suggest that the toxic substance in the blood serum is a proteid body. This suggestion is strengthened by the experimental demonstration that certain poisonous vegetable proteids, such as ricin, and abrin are powerful toxins to the renal cells, and the same is true of bacterial toxic proteids.

The researches of Hughes and Carter[1], although published eight years ago, have not received the recognition they deserve.

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[1] Amer. Journ. of Med. Sciences, 1894.

These men found that while the blood serum of a healthy man when injected into dogs and rabbits causes marked degenerative changes in the renal cells of the animals, the blood sera of men with chronic Bright's disease had more marked effects, and when employed in large quantity, caused the symptoms of uremia. They ascertained that the uremia-producing power of the blood serum of Bright's disease is "rendered abortive, or at least much lessened, by the moderate application of heat, and that it is not readily dialyzable," and they concluded that the toxin in the blood serum of Bright's disease is an albuminous body.

Later investigations have shown that the blood serum of an animal, in which structural disease of the kidney has been induced, may lead to alterations of a similar character in the kidney of an animal of the same species, when injected into the blood of the second animal, and that this toxicity of this serum, as manifested by its action on the renal cells, may be destroyed by moderate heat. It may be remarked here, parenthetically, that it has been shown that the blood serum of the horse has no effect upon the renal cells of animals of other species. Whether or not this holds good for the blood sera of all herbiverous mammals we cannot say. I have thought it best to mention this fact in view of the extensive employment of the blood serum of the horse in the antitoxic treatment of diphtheria and tetanus.

It seems to me that the facts above mentioned are of great significance, and may be of service to us in formulating our opinions concerning the etiology of chronic Bright's disease, and possibly may be utilized in the treatment of this affection. This theory might at least be used as a working hypothesis, and although it may be largely erroneous, it still may possibly be of service. At least, there are good reasons for concluding that in certain forms of chronic nephritis, nephrolysins are found in the circulating blood of the sick man. These nephrolysins are albuminous bodies and, when injected into the blood of experimental animals, they lead to degenerative changes in the renal structure, and when employed in sufficient amount they may induce the symptoms of so-called uremia, and death.

If there be any truth in this hypothesis, which, as I have endeavored to show, certainly has considerable support in demonstration, provided we have not wholly misinterpreted experimental results, then the hygienic and dietetic treatment of chronic nephritis, it seems to me, should be directed towards the possibility of profoundly altering the proteid constituents of the blood.

The most reasonable hope of doing this lies in making a radical change in the proteids of the food.

Before going into this, however, I wish to make some brief statements concerning the employment of medicinal agents in chronic nephritis. I am led to do this for fear that it may be thought that I would discard all drugs as valueless, and this is far from my opinion. No one of experience can deny the value of digitalis in passive hyperemia of the kidney due to disease of the heart, and which is often accompanied by albuminuria and more or less extensive dropsy. Indeed, these are the cases of so-called Bright's disease that are so satisfactorily treated by the proper administration of heart tonics, the best of which, so far as these cases are concerned, is, in my experience, digitalis. Neither can one of experience deny that great and more or less lasting good is secured by the administration of hydragogue cathartics, such as elaterium. Under the proper employment of this drug and the subsequent use of heart tonics, I have seen extensive edemas of the lower extremities wholly disappear, and the patient able to return to his work and continue at it for years. Furthermore, the value of mercury in syphilitic diseases of the kidney and the benefit of quinine in malarial nephritis cannot be questioned. We must always strive in the treatment of any disease to find the causative agent, and direct our treatment accordingly. It is true that we may empirically discover a cure while the cause remains unknown, as has happened in the treatment of both malaria and syphilis, but happy hits of this kind are not to be expected to occur with any great frequency. However, just this thing has, if I may so express it, partially happened in the dietetic treatment of chronic nephritis, inasmuch as the milk diet in this disease was tried with more or less success long before we knew anything of the differences between the proteids of milk and those of meat.

Clinicians generally recognize the importance of diet in chronic nephritis, and much has been written on this subject. Thus, Pel says: "The question, what diet shall we prescribe for our patients with kidney disease, is of great practical importance, because I know of no organic disease in which the manner of life and food so largely influences the course of the disease as in chronic nephritis." And still there is the greatest difference of opinion among these same clinicians when it comes to the point of saying just what foods shall be prohibited and what allowed. It may not be amiss to briefly refer to some of these differences.

As a rule there is agreement that a meat diet is harmful, and yet at least one writer recommends an exclusive meat diet, but this is so generally condemned that we may overlook it altogether. Some of our most recent authorities lay but little stress upon the desirability of restricting meat, or omit mention of it altogether. In discussing the treatment of what he calls chronic productive nephritis (interstitial nephritis), Delafield says: "As regards the diet, the quantity of sugars and starches taken should be restricted, and the ingestion of fats encouraged. The use of wine, spirits and tobacco should be discontinued," and this is all he has to say about diet in the treatment of this form of nephritis. Under the head of chronic productive nephritis with exudation (parenchymatous nephritis) he is even more brief, for he contents himself with the following: "For the nephritis the patient should be kept in bed and placed on a fluid diet." Under the treatment of chronic parenchymatous nephritis, Osler gives one sentence to diet, and this reads as follows: "Milk or buttermilk should constitute the chief article of food," and under interstitial nephritis he says: "The diet should be light and nourishing, and the patient should be warned not to eat excessively, and not to take meat more than once a day. Care in food and drink is probably the most important element in the treatment of these early cases."

All have heard of the interdiction of dark meats, but von Noorden claims that the distinction between light and dark meats, so far as they affect the kidney, is a myth. Fish is condemned by Bouchard on the ground that it contains toxins and increases the toxicity of the urine, but is permitted as a substitute for beef by Klemperer, while Pel thinks that we should distinguish between the kinds of fish, and sees no reason for the exclusion of easily digested species from the dietary of the nephritic. Ortner forbids every part of the calf except the sweet breads and the brain, while Kolisch thinks these the very organs that should be excluded on account of their large nuclein content. There seems to be a general condemnation of game, even when the flesh of domesticated animals is permitted either with or without restriction. Why the flesh of the quail, grouse or other wild bird should be so much more harmful to the renal cells than that of the barnyard fowl, no one, so far as I know, has attempted to explain. Probably the interdiction of game is due to an unconscious effect of the old theological dogma that whatever man enjoys is bad for him.

The differences of opinion about the placing of eggs on the menu of the chronic nephritic are quite as marked as those concerning meat. Early in his career as a clinician, Senator prohibited eggs because it has been shown that a more or less lasting albuminuria could be induced in experimental animals by the intravenous injection of solutions of egg-albumin, also that a like albuminuria might result in man by swallowing a large number of raw eggs, but in later years he has seen that his conclusions were hardly justified by the data, and now permits that article of diet in moderation. Oertel and others have found the eating of eggs in moderation may be granted to the nephritic.

The exclusive milk diet has been greatly lauded by some, and milk as an important article of food is not only generally permitted, but is prescribed. "Le regime lacte absolu" of the French has been probably more frequently prescribed and less frequently followed than any other diet prescribed in chronic Bright's disease. Generally, however, the prescription is given in the words of Dieulafoy, who says: "Follow the milk diet as absolutely as possible." It has been said that a pregnant woman who follows an absolute milk diet for weeks never has eclampsia. As to the truth of this statement, I cannot testify, because I never knew a pregnant woman to follow such a diet, but Pel states that he has known eclampsia to occur when the milk diet had been "very closely" followed. An exclusive milk diet has been in my experience an impossible thing to secure with nephritis, and, moreover, I do not believe that it is the best. Many clinicians have had a like experience so far as the difficulty in carrying out this regime is concerned, and some think that it is harmful in its effects.

On this point Pel makes the following statement: "This exclusive diet is not well borne by many, and disturbances in the functions of the stomach and intestines occur not infrequently. Everyone does not bear it well, and idiosyncrasies are seen. Moreover, we must not forget that on this diet one obtains too much water, much phosphoric acid, much albumin, and too little iron for the needs of the organism. Not infrequently there is an undesirable increase in adipose tissue, and a decrease in hemoglobin, especially when the individual has a predilection for the accumulation of fat or towards anemia. Three litres of milk contain more than 100 grams of albumin, from which more than 30 grams of urea will be formed, and still we are cautioned against an excess of proteid. Furthermore, I think the amount of phosphoric acid, which varies from three to four grams daily, is harmful to the kidneys. Von Noorden suggests that the phosphoric acid may be partially eliminated by the addition of lime water, which forms an insoluble phosphate, and this is eliminated by the bowels. The deficiency of iron can be made good by the administration of medicinal preparations, but still the large amount of water may be harmful. To many patients with contracted kidneys, and whose blood pressure is high, whose vessels show the well-known changes, and who are already cachetic, the drinking of so much milk is directly harmful, for the blood pressure is further increased, the hydremia is intensified, and the diseased heart still further endangered. Still further, the increased water acts as unnecessary and undesirable irritant upon the kidney, and especially upon the glomeruli. For these reasons the amount of milk taken daily should be limited to from one to one and one-half litres daily, especially in contracted kidney, and in those cases of parenchymatous nephritis where the amount of urine is small and the anasarca great; in these the dropsy will be increased because the water will not be eliminated, but will accumulate in the subcutaneous tissue." While I do not agree with all the statements in this quotation, I believe that the argument against an exclusive milk diet is well put. Pel concludes his argument in favor of a mixed diet, and on this point I certainly do not agree with him.

Passing on to the consideration of vegetable foods, we find the same differences among writers. Pel cautions us against those fruits and vegetables that contain benzoic acid, such as plums and green vegetables, but if anyone has shown that the small amount of benzoic acid found in the few plums that a patient would consume at a meal or in a day would be at all harmful, I am not aware of such a demonstration. Asparagus has been condemned, I suppose, because it imparts an odor to the urine. Certainly I know of no other reason for this interdiction. Certain vegetables have been condemned on account of their large potassium content, but as Pel states, it was formerly the custom to give saltpetre in doses of half an ounce per day without any evidence of harmful action on the kidneys.

The diet which I have found most serviceable in chronic nephritis is, with the exception of cream and butter, wholly vegetables. I forbid meat in any and every form, eggs and milk. As I have already stated, the object which I desire to accomplish is to profoundly alter the proteids in the circulating blood, and both theoretically and clinically I believe that I have the best of reasons for the selection of this diet. The urine for twenty-four hours should be collected and the quantity of albumin in it should be accurately determined, and the result expressed both absolutely and in percentage. At the same time the amount of urea and of total nitrogen should be ascertained. Then the patient should be placed on the diet and after three days or longer, corresponding analyses should be made. The diet permits cream, which should be separated from the milk as completely as possible, and should not contain more than one per cent. of proteid, and the amount of cream allowed per day is limited to 500 grams, or one pint. Corn meal mush I prefer among the cereals, and this is allowed ab libitum, and oat meal or cracked wheat may be substituted. Sugar is allowed ad libitum for the mush, and Zwieback and butter and potatoes complete the substantials of the ration, although I permit the legumins, peas and beans, either fresh or canned, green vegetables, fruits and melons. There is no difficulty in living on such a diet, and after a few weeks patients lose all desire for meat and eggs and wonder why they were formerly so fond of them. That the necessary calories are furnished by this is shown by the following table:

	Proteid.	Carbohydrate.	Fat.
500 grams of cream	5	27.60	150
200 grams corn meal	20	130.60	8
100 grams Zweiback	14	60.00	24
50 grams butter	..	......	40
20 grams sugar	..	20.00	...
	39	238.20	222

This gives 39 grams of proteid, 238.2 grams of carbohydrate and 222 grams of fat. The caloric value of each gram of proteid and carbohydrate is 4.5 and of each gram of fat is 9; therefore these calories represented in this ration are shown by the following figures:

$$39+238.2=277.2\times4.5=1274.4$$
$$222\times9 \qquad 1998.0$$
$$3245.4$$

It will be seen that this ration furnishes more than 3,000 calories, and we have taken no account of fruits and melons. Furthermore, the proteids can be increased by substituting in part legumins for cereals, or by substituting oat meal or wheat for the corn meal. I have had hard working men live on this diet with ease, and at the same time the amount of albumin in the urine has gradually decreased.

The proper thing to do in order to scientifically demonstrate the value of any diet in chronic nephritis will be to test the relative toxicity of the blood serum of the patient on animals, with especial reference to its action on the kidneys of the animals, under different diets. This has not been done, but it offers a promising field of research to the young and enthusiastic student of pathology.

I regard the selection of a diet in chronic nephritis quite as important as it is in diabetes, and so far as my experience goes in the management of both of these diseases, diet is the most important thing. The digestive organs of the chronic nephritis need to be watched closely. Lavage of the stomach is often indicated, and an analysis of the gastric juice should be made in all cases. The bowels must be kept in good condition, but copious purgation, except during exacerbations, or for the removal of dropsical accumulations, or in threatened uremia, is not desirable or beneficial. I have already spoken of the value of elaterium and other hydrogogues when free catharsis is needed.

The skin should be kept in a normal, but not too active, state. I think that the hot bath is in some cases given too frequently. Of course, one case gives no rules to govern the frequency of the hot bath, because so much depends upon the condition of the patient. As a rule I recommend the hot bath (temperature above 90°F.) two or three times a week, and a Turkish bath once a month. Flannel underclothing, medium to heavy in the winter and light in the summer, is prescribed, but I do not insist, as some do, that the patient should sleep between blankets in hot weather. Blood counts and hemoglobin estimations furnish evidences that may be of value and should not be neglected.

The only reason that I have for writing this paper lies in what I have said concerning the nature of chronic nephritis, and its dietary treatment. On these points both my study and experience have led me to conclusions that differ from those held by others who have written upon the subject.

RECENT INVESTIGATIONS IN THE PATHOLOGY OF NEPHRITIS.*

By Woods Hutchinson, M. D.,
PORTLAND, ORE.

The pathology of nephritis is not that of a disease of the kidney, but is part of a general systemic condition. The causes of the disease lie outside of the kidney, and are not primary in it any more than is true of other diseases, as syphilis, tuberculosis, etc. A nephritis being found, with the presence of albumin and casts, an external cause must be sought, as, for instance, scarlet fever. The most common cause is some form of auto-intestinal infection, as exhibited in a lithemic, uric acid or so-called gouty diathesis. But these terms refer simply to a form of poison whose real nature is unknown. By relief of these intoxications we will reach the causes of the disease. Intestinal infection is a much more important consideration than efforts toward a dietary to avoid urea formation.

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*A summary of an address delivered before the Washington State Medical Association, Spokane, Wash., Sept. 1, 2 and 3, 1903.

It is a mistake to attempt to secure entire rest on the part of the kidney. It is best to obtain some exercise of the diseased organ. Nothing is so valuable to stimulate the tubules to action as urea, if it can be properly found and brought to them.

Most striking results have been obtained by surgical interference in kidney inflammation. When these were first demonstrated they were attributed to new blood supply from adhesions, but Edebohls has obtained the same in acute intoxication, as seen in eclampsia where splitting the capsule and securing a new attachment of the organ has produced a most remarkable result.

Here is now presented a new pathological theory. The kidney produces some unknown internal secretions as well as urea—probably an enzyme. This is liberated by the sudden relief of pressure, induced by this operation. Experimentally, some enzyme has been obtained from animal kidneys that has afforded relief in nephritis.

Our old views concerning the pathology of this condition need revision. It may be due to a new poison found in the body, and perhaps an ingredient of the food.

RENAL DECAPSULATION AS A CURE FOR CHRONIC BRIGHT'S DISEASE.*

By Franz H. Coe, M. D.,

SEATTLE, WASH.

Renal decapsulation, as a cure for chronic Bright's disease, is receiving the attention of the best operators the world over. So far, we have very little reliable data extending over a period sufficiently long to make it valuable, except that furnished by Dr. Edebohls, but so great is his surgical skill, so well recognized his ability as a scholar and accurate observer, and such the confidence that his personal integrity inspires in all who know him, that nothing more is needed to recommend the procedure to the thoughtful surgeon.

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*Read before the Washington State Medical Association, Spokane, Wash., September 1, 2, 3, 1903.

In the early spring of 1899, while reviewing the histories of 154 nephropexies performed by himself, he observed that three out of five cases of movable kidneys, complicated with chronic Bright's disease, were permanently relieved of the latter condition by the fixation.

Case I—Diffuse chronic nephritis. Albumin and casts disappeared within two months after operation and had not returned for six years.

Case IV—Chronic interstitial nephritis. Albumin and casts permanently disappeared from the urine four months after operation.

Case V—Chronic interstitial nephritis. Repeated examinations of the urine during the year following operation showed progressive improvement, and by the end of that period a cure that proved permanent.

Case VI—The first undertaken for the express purpose of curing nephritis, chronic interstitial in character. Double nephropexy, one kidney the seat of advanced interstitial nephritis, the other healthy. All evidence of disease disappeared within a month and patient remains free to date.[1]

Between the first publication cited above, April, 1899, and December 21, 1901, eighteen cases were treated by operation for the express purpose of effecting a cure. All but three of these remain free from disease at date of publication.[2]

It is to be remembered that none of these cases received any medical treatment or specially selected dietary after the operation, therefore the operation is wholly accountable for results. While on the subject, I wish to protest against the long-continued dietetic treatment of Bright's, by which the patient is so depleted physically that the system is left without resources to combat the disease. I will return to this subject later.

Knowing so much of the results of decapsulation as narrated above, the writer went to Dr. Edebohls and submitted to double renal decapsulation May 7, 1903. Chronic interstitial nephritis, kidneys two-thirds normal size, albumin sometimes present, oftener absent, hyaline casts constant. During a period of six weeks he had the privilege of following the course not only of his own case (this much, perhaps, with pardonable interest), but those of six other patients as well. All were chronic cases, being always of the mixed type, parenchymatous and interstitial. (For all practical purposes we will consider only interstitial, parenchymatous and diffuse nephritis, or the mixed type.) The results were invariably as follows: Reduction of edema, when present, within a few days; immediate increase of solids as shown by the urea; gradual lessening of albumin and more gradual lessening in number of casts; but perhaps the most pleasing result is the almost immediate improved personel of the patient. The headache disappears, the mind is clearer and the heavy, tense, intra-cranial sensation, so hard to bear, is relieved. The immediately improved well being, aside from the gradual restoration to health, is quite enough to recommend the operation to any one suffering from this heretofore incurable disease. I myself would gladly undergo the operation at any time for the sake of feeling as well as I have felt since May 7th.

One case is especially instructive, as I studied it carefully from its entrance to hospital for a period of six weeks.

Mr. B., Hebrew, aged 43, was brought by his physician from Memphis under the following conditions: Recognizing the fatal outcome of the disease, patient was rushed to New York as a final resort. During the last eight hours of the trip was semi-comatose and had been sustained by administration of oxygen and other stimulants. Disease had been recognized for several weeks, but was of long standing. General edema, skin tight and shining over the extremities, so as to present marked resistance; feet and hands extremely swollen; scrotum about eighteen inches in circumference; heart acutely dilated, so that none of the valvular sounds could be distinguished, all being merged in an almost continuous surging; radial pulse almost imperceptible, estimated 150; respiration between 30 and 40; urine, acid, 200 cc. for the last twenty-four hours, specific gravity not taken; 40 per cent. albumin, loaded with casts; urea reported low, amount not specified. After a few days' treatment, chiefly by squills, digitalis and calomel, patient was operated upon under combined nitrous oxide and ether anesthesia. Double decapsulation performed by Dr. Edebohls in twenty-one minutes. Strands of silkworm gut used as drains on account of the great edema. It was possible to press out an appreciable amount of serum along the line of incision. No special treatment followed the operation, except a little heart stimulant. At the end of the fifth week urine measured 2000 cc. The urea, which always rises during the disappearance of edema, reached 38 grams, albumin a trace and casts few, pulse 120, valvular sounds materially improved. Edema had practically disappeared, leaving a very slight and decidedly skinny individual, in place of the swollen, heavy-featured man of about a month previous. So much for the chronic cases.

In June, 1903, Edebohls published one of two cases of decapsulation for puerperal eclampsia.[3]

Primipera, aged 23, typhoid during fourth month, uremia and eclampsia near end of eighth month; five severe convulsions within sixteen hours relieved by chloroform, forced delivery during the sixth. Freedom from convulsion for the next forty-eight hours; uremic symptoms very marked, followed by six seizures; urine remained practically the same after delivery to date of operation. Seventy-eight hours after first convulsions, operation of decapsulation on both kidneys was performed. They were found in an acute and subacute inflammatory condition, slightly enlarged, soft, turbid from cloudy swelling, capsule not tense. No further uremic manifestations, and within forty-eight hours patient was normal, mentally. Urine examined daily for two weeks showed continued improvement; eleven weeks later urine nearly normal; patient feeling perfectly well.

I can present only two cases from my own operative experience.

Case I—Mr. H., civil engineer, 48 years of age, first diagnosed chronic nephritis January, 1901; informed him of his condition and advised as to treatment. In our city it is not difficult to find physicians who can deny a previous physical diagnosis by a five-minute inspection across the consultation room. Patient found such a one and followed his advice to its logical sequence. I saw him, April 13, 1903, at his home, and found him in the last stages of chronic nephritis; arterio-schlerosis marked, heart dilated, urine 800 cc. (estimated), specific gravity 1012, albumin 30 per cent. by bulk, blood cells and granular casts, headache severe. Knowing that death was impending, he elected a decapsulation as a possible means of recovery. Operation, April 14. The capsules of both kidneys were partially removed; unable to deliver kidneys on back. Within twenty-four hours after operation urine had increased to 1500 cc., urea 30 grams, albumin diminished. The urea was not estimated previous to the operation because of the inadvisability of delay. Patient died four days later, from edema of the lungs. Had no headache after operation.

Case II—Harold C., aged 15. Nephritis known to be present and not yielding to treatment for a period of nine months, headaches severe, anorexia marked, albumin 2 per cent., hyaline and granular casts, some showing epithelial degeneration, quantity 1200 cc., urea 18 grams; operation July 10, 1903. Bilateral decapsulation, kidneys not delivered on the back, no shock, no nausea, urine bloody for several days. Examination, Aug. 6; urine clear, 1500 cc., specific gravity 1018, albumin 1 per cent., urea 37 grams. August 15 went on a boating trip and played pretty vigorously, followed by a renal hemorrhage. In spite of this, casts had decreased, urea 28 grams, albumin increased, although urine was filtered. It is likely that some of the blood serum was present; headaches have disappeared and patient feels perfectly well.

Enough has been cited to show the pronounced benefit of decapsulation, amounting to a cure in a large percentage of cases, and its more extensive employment is recommended to operators having some experience in renal surgery. The technique is practically that of nephropexy, minus the fixation and plus the removal of the capsule, and always on both kidneys, unless one is known to be healthy. Place patient on face with cylindrical air cushion in best position to expose the kidneys. Release some of the air from the cushion, when patient will settle down to a position free from sliding. Make the usual incision from the twelfth rib outward to the crest of ilium, if necessary to give more space, avoiding the ilio-hypogastric and the ilio-inguinal nerves, although one or the other is almost certain to be injured, leading to anesthesia and some slight functional derangement of the muscles supplied. At times the pain from this complication is rather persistent and reflected down the thigh. It is often deep-seated in the groin, giving one the impression that some local difficulty has supervened. It may be very acute, and is materially relieved by an application of camphor and equal parts of belladonna and mercury ointment.

In all cases patient should be informed of these possible complications, but the information should be accompanied by the assurance that it is temporary, disappearing at the outside within a few weeks. Avoid damaging the fatty capsule further than opening it. Do not depress it to the inferior pole, as in some modifications of nephropexy. Deliver kidney on back, if possible, avoid much tension on renal vessels always, but especially if there is atheroma. Vessels have been ruptured with necessarily fatal results. Nick kidney capsule and divide completely from pole to pole on grooved director; decapsulate with gloved finger. No serious hemorrhage results and there is no special danger that the organ will be ruptured with ordinarily skilled handling. With blunt scissors remove the entire capsule down to the pelvis. In case kidney cannot be delivered, denudation must be made in the depths of the wound—a very trying and difficult procedure, as I found in my two cases. Return kidney and restore fatty capsule to position, except in the back, as it is desirable to bring the denuded surface of kidney in contact with the rawed edge of the quadratus. This is best accomplished in placing the first row of sutures so as to turn the edge of the quadratus toward the kidney by catching, not the edge of the muscle, but about one-half inch from this edge, on the dorsal aspect (better use interrupted sutures of thirty-day chromic gut No. 2). Close the wound in two or three layers, including the subcuticular stitch. Take especial care that the dressings shall be smooth and even, as patient will very soon become sensible of any inequalities. Dress with several layers of sterile gauze, covered by cotton, and secure by adhesive plaster. Dress on seventh day, unless otherwise indicated.

Patient must preserve an absolutely dorsal position for not less than three weeks, and I think it would be wise to extend this period to about four weeks with children and continue them in bed, but not necessarily in the dorsal position, for two to three weeks longer, as I fear their indiscretion, and the adhesions between the kidney and the surrounding tissues may, necessarily, be easily broken. Give water freely, diet liberal, not excessive, omitting meats, with the exception that they may eat anything that is reasonable, of course avoiding highly spiced or irritating foods. Before leaving hospital patient should be sitting up a large portion of the day. The greatest caution must be observed until recovery, as shown by the urine, is complete, be it three days, three weeks, three months or longer.

It is useless, in the face of the well-known pathological changes, to expect that the kidneys will immediately recover and not be liable to recurrence of disease, unless the greatest care is observed. I think it would be wise to insist on a year of idleness, but this is easy to advise and difficult to secure. Therefore, approach the desirable as nearly as possible.

The question immediately arises, What are the factors involved in the cure? It is positive that the capsule reforms sooner or later, the period being unknown.[4] It is positive that new blood vessels enter the kidney upon the denuded surface, arising from the edge of the quadratus and the fatty capsule. This has been demonstrated in one post-mortem, after death from an intercurrent disease. A blood vessel is reported "as large as a medium-sized quill," passing directly into the kidney substance, vessels arising from the edge of the quadratus.[5] Bleeding for uremia has long been recognized as a legitimate procedure. There is some hemorrhage from the kidneys and its surrounding tissues during an operation. This should give even greater relief than bleeding from some distant portion of the body.

The truth lies somewhere near the following suggestions: The capsule is inelastic, and when primary congestion and acute nephritis occur, the kidney is swollen, hence its tissues must be under pressure. May not this pressure lead to degeneration of parenchymatous tissue and the inflamed state be followed by the increase of interstitial tissue, with its consequent contraction, at the expense of the parenchyma, all due to lessened blood supply, lessened by the well-known narrowing of some blood channels and obliteration of some others? Upon the relief from capsular tension must depend the almost immediate improvement seen in the increased urine and urea, and lessened albumin, for this occurs, surely too soon to be dependent upon the increased blood supply. The rejuvenation of degenerated tissue, or the stimulation of the yet unaffected areas of the kidney, so that they are able fully to compensate, must be due to the increased blood supply. It may be that the chemic action of the renal cells is so influenced by the increased blood supply that a change, at present unknown, takes place, leading to the elimination of the solids already recognized in the urine, but whose origin and method of production are still obscure. Scientific workers have yet much to teach us as to the true meaning of urea and of the chlorides.

As I was closing this paper, I find a reference to work done by Weidal, which seems to prove that edema in Bright's increases with the ingestion of chlorides and decreases with their suspension. This is a matter worthy of consideration, although his suggestion that the cow giving the milk upon which patient is fed should be deprived of salt seems a little far-fetched.

To operators who will try the surgical procedure, I would add the following: Keep patient in bed for a week preceding operation; examine the mixed twenty-four hour urine for reaction, quantity, accurate estimation of albumin by Esbach's method, or, better still, the centrifuge method, with potassium ferricyanide; repeated estimation of urea for total average quantity. Some value may be attached to the lessened quantity of the chlorides as demonstrating renal insufficiency. This is readily made in the following manner: Underlie the urine in the settling glass with nitric acid, add an eighth grain to the ounce solution of nitrate of silver, drop by drop. If the chlorides are normal or in excess, the precipitated chloride drops to the surface of the nitric acid in more or less spherical form; if deficient, a diffuse cloud is produced. Do not trust the settling glass for examination for casts or other urinary sediments. Use a centrifuge, or quit treating kidney diseases. Do not think there is no nephritis because there is no albumin. Always use the contact test. Conspicuous edema is not necessarily a symptom. What I call inconspicuous edema may be present and is best demonstrated by pressure upon scalp or forehead with some unyielding object. Be sure of the condition of heart and blood vessels. Above all, do not belittle in your own minds the difficulties which may confront you in the operation, for it may be simple or very complicated, on account of, first, the thickness of the walls; second, the high position of the kidneys; third, the shortness of the pedicle; fourth, the injuries to nerves as before mentioned; fifth, adhesion of capsule; sixth, deep wounding of kidney or chance puncture of the pelvis in removing capsule deep in the wound. These, with some other difficulties which will suggest themselves, will rank this operation as not of the extremely simple order. The cases are generally of not such urgent nature that the services of an operator, trained in kidney surgery, may not be secured.

Before closing I wish to return to decapsulation in eclampsia. In the hands of a rapid operator, I would suggest it as the operation of choice. By abortion, the child is almost surely lost and frequently the mother is not saved. Decapsulation may be performed with less shock to patient, both from length of time involved and the anesthetic used, and, if necessary, abortion remains as a further resort.

A word as to anesthesia. We have all been taught the danger of either as an anesthetic in renal insufficiency. As a danger, it may be rejected in decapsulation. I am at present using, in all my major operations, the Bennett inhaler and combined nitrous oxide and ether anesthesia. With this apparatus I have seen an extensive pelvic operation, involving considerably over an hour's time, performed with initial inhalations of nitrous oxide and 200 grams of ether. There is less depression and far less nausea to the patient in the early stages of the anesthesia.

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DISCUSSION.

Dr. Willis, of Seattle, said he would like to see the effect, on a series of suitable cases, of the rest in bed, dietetics, anesthesia, etc., without the ensuing operation, in order to determine their result alone.

Dr. Openheimer, of Butte, explained that, thus far, the cause of cure in these cases is only a matter of theory. The kidneys are a filter of the human system, through which a certain amount of blood must pass. The blood must be admitted to the kidney through an entrance of a certain size in order to attain a sufficient amount. This may be impeded by a diseased condition of the organ. By enlarging this entrance and thus letting in more blood, this operation may equalize conditions, through decapsulating the kidney.

Dr. Catterson, of Spokane, reported operation on six cases, as a result of which he is not enthusiastic over it. He has found that other treatment has produced like results without operation. Edebohl's work is on a theory only, and there are no facts to support it. He has relieved pain and other symptoms, but they have all returned later.

Dr. Preucel, of Dayton, suggested that patients with chronic arteriosclerosis might be most benefited by the operation. He had found some improved on milk, others on vegetable diet. He thought the quality of milk in different localities might vary and thus produce differing results.

Dr. Spellman, of Anaconda, said the nomenclature of Bright's disease is in a hopeless tangle. Virchow formerly believed in two separate and distinct forms of the disease, acute parenchymatous and chronic interstitial. Now it is claimed one could run into the other. He thinks the amount of work the kidney has to do is important. The source of the milk is unimportant. He has seen improvement both on it and a vegetable diet.

Dr. De Beck, of Seattle, called attention to one of the most distressing end results, albuminuric retinitis. After its advent death is not over eighteen months distant. It has been reported that it has improved or disappeared after decapsulation. If this be true, surely a most promising result will be attained.

Dr. Hutchinson wished to correct the impression that he had said the more work the kidney performed the better for it. A certain amount is desirable. It is not the kidneys alone that one must strive to benefit, but the general condition. He ventured to dissent from the recommended vegetable diet. Appetite and comfort will not long be sustained on such, when the resisting power of the patient will be lowered. In the long run the patient may be made worse, though the kidneys improve.

Dr. Vaughan said he intentionally left some things indefinite. He has treated only a half-dozen patients on this plan. He did not know how long the patient would thrive on the diet. He put the idea forward that the profession might test it. He believed the theory of some value. Whatever will do the patient good is called for. He knows nothing of the Edebohl operation. We know operation on some organs relieves pathological conditions, illustrated by laparotomy for tubercular peritnoitis.

Dr. Coe inquired how long Dr. Catterson waited after operation before obtaining his bad results. Not all are relieved. He would surely advocate it for eclampsia. As a rule would recommend it only for selected cases. One must keep track of his patients and examine them frequently. In case of death secure autopsy and make thorough study of the conditions.

THE TREATMENT OF VASCULAR TUMORS BY THE INJECTION OF BOILING WATER.*

By N. G. Blalock, M. D.,

WALLA WALLA, WASH.

Dr. John A. Wyeth, of New York, in his able and instructive article read before the section of surgery and anatomy of the fifty-fourth session of the American Medical Association at New Orleans, last May, on the above subject, said: "Angiomata or non-malignant vascular tumors, especially those of large size, as cirsoid aneurisms or cavernous nevi, are among the most difficult lesions with which the surgeon has to contend. In fact, a considerable number of these cases have heretofore been deemed inoperable, and have been abandoned to an ever-increasing deformity and discomfort and, in some instances, to death from hemorrhage, pressure or other cause.

While I do not claim that the method I am about to submit is infallible or will cure every case, or is without danger, I am convinced it is worthy of serious consideration.

These vascular neoplasms may be classified on an anatomic basis as arterial, capillary and venous. The arterial angioma, or cirsoid aneurism, is most infrequently observed. The venous variety (cavernous nevus) is next in order of infrequency, while the capillary form, or 'mother's mark,' is most common."

I presume that there is not a surgeon present who has not been baffled with angiomatous tumors and some, no doubt, like myself, have been humiliated by failure in the attempt to remove them with the knife. It is always humiliating to make failure. Thanks to Dr. Wyeth for inaugurating a method that will, if properly handled, cure where failure and humiliation was to be expected. That boiling water, injected into a cirsoid tumor, would produce severe burn and produce sloughing of the parts was to be expected, but experience shows that it will not, but that it coagulates the blood and albuminoids in vascular neoplasms and cures by starvation or denutrition.

When I was listening to Dr. Wyeth read his article, my thoughts were carried to a beautiful little girl, eighteen months old, with a vascular tumor on her left cheek, in which case I had made failure. The history of the case is as follows:

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*Read before the Washington State Medical Association, Spokane, Wash., September 1, 2, 3, 1903.

Soon after the birth of the child a small red spot was noticed on her cheek, which in a few weeks had become quite prominent, and the mother called the attention of the attending physician to it. He told her that it might not hurt her or amount to much, and advised her to let it alone. It continued to enlarge, however, and she took it to the doctor again. This time he made a crucial incision, which bled very freely, but by bandaging and compresses it ceased to bleed and soon healed over, but continued to enlarge until, on November 1, 1902, she brought her to me. I found a vascular tumor on the left cheek, oval in shape, one and one-fourth inches in diameter, red, vascular and elevated about one quarter of an inch. Upon firm pressure it would disappear, but would return as soon as the pressure was removed. I advised the mother that, as the tumor was not large, I thought I could remove it by the knife, to which she readily assented. On November 24, 1902, I removed the entire mass, which bled very freely. I used harelip pins to bring the edges together and to prevent bleeding. The wound healed in due time, but to my chagrin the tumor was as large as ever in a very short time. I tried the Finsen light on it faithfully for a month, but with very little, if any effect.

When I returned from New Orleans I determined to try the injection of boiling water as recommended by Dr. Wyeth.

On July 18, 1903, I injected twenty minims of boiling water, passing the hypodermic needle well under the skin and under the bottom of the tumor. The surface, which was red before the injection, now became white. No unpleasant after-results occurred, not even any noticeable soreness. In one week the tumor was much reduced in size, especially on the side in which the injection was made, and was more natural in color. On July 30th I made another injection, with the same results. On August 29th I made another injection. The tumor, however, was reduced in size at least two-thirds and was nearly normal in color. All these injections were done under chloroform narcosis. I am in doubt whether another injection will be necessary. Certain I am that, so far, it has been most satisfactory.

I forgot to mention that when the child cried the tumor would increase in size very perceptibly. Now when she cries there is no change either in color or size. It may require one more injection, but I am confident not more than one more, if any, will be required to effect a permanent cure.

Dr. Wyeth gives the technic of the operation very carefully, which I had no trouble to follow. See American Medical Association Journal, June 27th, 1903, page 1778.

TREATMENT OF PELVIC DISEASE IN THE FEMALE INSANE.*

By Ernest A. Hall, M. D., F. C. R. S. E.

VANCOUVER, B. C.

I have selected the subject of the Treatment of Pelvic Disease in the Female Insane, as one that will be of great interest to all who are engaged in the general practice of medicine. I have very few new theories to bring before you. I simply wish to lay before you the results of personal experience in this work, as I believe the function of a medical society is that of sifting the evidence given by individual practitioners, passing judgment upon it, rejecting what is useless, and retaining that which appeals to them as satisfactory.

My attention was first called to this matter five years ago. A married lady, aged 35, a former patient, had been committed to the insane asylum during my absence in Europe. I gained permission from her husband to examine her. At that time she had been in the asylum two years and eight months, and was considered one of the worst cases of acute mania in the institution, being frequently so unmanageable that she had to be placed under restraint. She was not allowed to wear her artificial teeth for two years on account of biting everything she came in contact with. The medical superintendent considered her case hopeless. With the co-operation of that gentleman and the local physician, I examined the patient under chloroform, and found the right ligament thickened, the left ovary prolapsed and enlarged, uterus moveable, and the perineum partly ruptured. Upon this finding I recommended operative treatment.

She was removed to a private house, and placed under the care of two trained nurses. After dilation and curetting, I found the right ovary enlarged and cystic, with tubal adhesions; the left adherent in the culdesac. The appendages were removed. The operation was brief, practically bloodless. The stitches were removed on the twelfth day. The mental condition remained unchanged for some days. She continually endeavored to sit up in bed, to tear the bed clothes, to bite and scratch the nurses. I was obliged to tie her hands on either side to the bed, and place a heavy bandage over the body. On the fourteenth day after the operation she became quieter and recognized her mother. On the seventeenth she appeared a little more rational and took some interest in the surroundings. The following day I allowed her to see her daughter, now a bright girl of eleven years, whom she had not seen since entering the asylum. The meeting was not one soon to be forgotten. Day after day, as the physical strength increased, the mind became more capable of extended effort. Thirty-five days after the operation, accompanied by the nurse, I dined with the patient in her own home. It is now five years since. She has become restored to her family and friends, and has become a useful member of society. I herewith present her photograph.

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*Read before the Whatcom Medical Society, Whatcom, Wash., July 13, 1903.

Such is the brief history of one who was considered a "hopeless case of insanity," "was not fit for operation," and who would have been doomed probably to this living death until the end of the chapter. This most satisfactory result was the means of my being privileged to examine not a few cases—in all, 105.

My next case—a lady of 57 years, who had been confined in the asylum for two years—presented a slight degree of prolapse, laceration of the perineum complete. She had suffered from pain in the back and side for six months. I found upon opening her abdomen intense varicocele of the tube-ovarian plexus. I curetted and removed the appendages. Improvement followed, so much so that she was cared for by her children, not having to return to the asylum.

The next case, a lady, aged 52, had suffered from ovaritis several years previously; had never been pregnant; had been in the asylum for three years. Examination showed immovable retroversion and general pelvic adhesions; also adhesions of the clitoris with retention of the smegma. I freed the adhesions of the clitoris, and removed the left appendage, but failed to find the right ovary on account of the density of the adhesions, and replaced the womb. Insanity was completely cured. She has been restored to her husband, and has been a satisfactory housewife ever since.

One more case, as illustrating the borderland variety that we see so many of—Case No. 65, Mrs. B., never pregnant; had complained of pain in her side for six years; for several years suffered from mental confusion previous to and during menstruation; would throw away her clothing; scream loudly; threaten suicide, etc. She had passed through the usual ordeal of treatment for misplacement, etc. Examination showed masses upon both sides of the uterus with dense adhesions. Operation showed right ovary enlarged, cystic, and containing a mass of hard blood clot the size of a marble; left ovary enlarged; tubes disorganized by inflammation; universal adhesion; convalescence normal; immediate mental recovery.

It is not necessary to continue the repetition of cases, all in themselves being more or less interesting. Let us now endeavor to learn from the result of 105 examinations and 39 operations, some direct lessons that may assist us, and if possible, evolve principles that may be applicable in cases that may be presented to us. I have no arbitrary statements to make, only to lay before you the result of a few years' work, and some thoughts upon the same, hoping that you will handle me without gloves. We are anxious only to know the truth, for as expressed by one of your humorists, "What is the use of knowing so much if what you do know is not true?"

The question of relationship existing between the sexual organs and psychic phenomena still invites investigation, and yet remains without a fully satisfactory answer. During the last three years it has been demanding more and more attention in all countries where scientific medicine obtains, and is passing from the hands of the psychologist into those of the surgeon and pathologist. It is now a subject for clinical study and post mortem findings.

As to the examination of cases, up to the present time I have examined 105 women, suffering from various degrees of insanity. Only in acutely maniacal and in very obstinate cases was anesthesia used. There was no more apparent difference in the effect of the anesthesia in the examination of these than in ordinary cases.

Out of this number examined, I found well marked abnormalities in all but nine cases, or in 91 per cent. The conditions varied from fibroid uterus to adhesions of the clitoris. In less than 20 per cent. was there any knowledge of pelvic disease on the part of either patient or friends. In about 50 per cent. there could be traced a history of inflammatory action or pelvic pain. In one case, a dementia of ten years standing which recovered subsequent to operation, there was a direct history of gonorrheal infection, and in several others such infection was very probable. Several gave a history of sepsis following miscarriage. Thirty-nine were subject to operative measures, with a mental recovery of 17, or 43 per cent.; mental improvement in 12, or 30 per cent.; unimproved, 9; one not heard from. Three death followed the operations, one from uremia, the others from meningitis, the latter existing undetected before operation. The cases that made the most rapid recovery were of cystic and adherent ovaries and tubes. Next in order in recovery were fibroid conditions of the uterus.

The duration of the insanity, of those whose recovery followed operative treatment, was less than one-half that of those whose condition remained slightly improved or unimproved. It is only fair here to state that the recovery rate in well regulated state hospitals, where gynecological treatment is practically nil, is frequently higher than the recovery rate which I can present. This arises from the fact that the hospital has the advantage of the recent cases in which the recovery rate is very high.

It is not my purpose to endeavor to show in these cases, in which recovery followed the treatment, that the pathological condition removed was the primary source of the mental disturbance. No doubt it was one of the many combining causes. In any given case of insanity, the mental condition is the psychic result of some of the physical abnormalities, and the restoration of a small part of the organism to its normal condition may result in the restoration of the balance of power to such organism.

It is also worth noting, in passing, that between the sexual organs and the mind there appears to exist a unique connection. Demonstration is unnecessary to show that the sexual system, while in direct sympathetic connection with other organs, has also a unique connection with the psychical, nor to trace the relationship between a given psychological state and that of local pelvic congestion. The channel through which this is made possible is the same through which a local pelvic irritation may produce abnormal cerebral activity, with disordered cortical function, giving rise to and indicated by abnormal mentality. These influences from peripheral irritations of the sexual organs may at times be inhibited by a strong mentality, but they may, if severe and persistent, eventually overcome the strongest subjective effort. Given a certain environment of a strongly sexual character in a robust person, certain alterations of form and function follow in response to such stimuli, in spite of effort of the will to the contrary. To obviate the result the environment, or stimuli, which may be purely psychical, must be removed. Now if such stimuli, not necessarily objective, are sufficient to produce organic change in defiance of the will, so may a local pelvic irritation or stimulus, acting upon the higher nervous centers cause abnormal psychical action also in defiance to will power, to cease only when the abnormal environment or peripheral irritation is removed.

In consideration of these matters, what is our duty to this unfortunate class? To consign them to the state hospital without giving the patient the benefit of modern therapeutics is unjust to the patient and cruel to her friends. To those, who, under the burden of life's duties, and oppressed by its sorrows, harassed by the customs of society and irritated by disease, whose mentality at times indicates the result of constant peripheral irritation, whose reflexes refuse to submit to subjective guidance and become temporarily dominant, and who reasonably look to us for relief, what shall we say? Is asylum life with its unpleasant associations, its stone walls, iron bars and uniformed keepers, the atmosphere calculated to restore jaded nerves, to recuperate a wearied body, and remove local disease? On the contrary, admitting the utmost kindness on the part of those in charge, is not such an environment comparatively as irritating to a sensitive nature as her local disease is abnormal? Only after all methods have been exhausted, and not until then, should we permit our patients to be removed to the care of the state.

Let us look at this matter fairly, and if necessary in the concrete. In view of what has been accomplished in the modern treatment of insanity, and in view of the true conception of the disease, how would you or I act with regard to those who are nearest to us in ties of affection? Let us consider such symptoms as formerly but fingerposts pointing to the asylum, as indications for the necessity of closer examination and more skillful treatment remembering that every case committed is a painful admission upon our part of inability to locate or remove the physical disease. If such care were habitually exercised, the asylum commitments would be appreciably less. But in many cases we are rendered helpless through the inability of the friends to provide suitable accommodation and nursing, and there is nothing left upon our part but to commit to the state institution, realizing the fact that in doing this our patient is branded by an ignorant public, even if recovery takes place, and is considered incompetent. I make no criticism regarding your state hospitals, but I know of a country not far away where the position of hospital superintendent is too often the reward for party loyalty without any consideration of fitness, experience or scientific qualification. It is satisfactory to know that my own province of British Columbia is in this matter an exception.

Realizing the necessity of more theory work in this department in a Provincial institution, several years ago I made the suggestion to our government that a medical consulting staff should be associated with the medical superintendent of our hospital, who could meet once a quarter, and examine all recent commitments, to coöperate with the medical superintendent and outline a treatment, but this suggestion was not acted upon.

After due consideration, I have come to the conclusion that an excellent method of dealing with this subject is the establishment of a nervous or psychopathic hospital, which would stand as an intermediate station, where those who have adopted abnormal psychic conditions to the extent that home treatment is impossible or inadvisable could receive appropriate treatment until it could be satisfactorily shown that the underlying physical lesions were beyond the probability of early removal either by the natural forces or by medical or surgical measures. Those giving indications of chronicity or undue violence should be removed to the state institution. As it is at present constituted, the class of cases that would receive the greatest benefit from this arrangement would in the opinion of the writer, judging from his limited experience in the treatment of these unfortunates, be puerperal, toxemic, irritative from pelvic lesions as cystic inflammation, ovaritis, adhesions, fibroids, retro-displacements, etc., or, in general terms, all those classes of cases in which the expected rate is 75 per cent. Upon the other hand, it would be worse than folly to detain in this psycopathic suspect station, idiocy, senile dementia, or general paralysis.

We are being continually reminded of the alarming increase of insanity; the lack of accommodation, and the fact that a serious problem is confronting us in this direction. The establishing of municipal hospitals would to a great extent lessen the congestion, and since experience has shown that recent cases are more amenable to treatment than those in which the measures for relief have delayed until the abnormal metabolism of the corticle cells has become somewhat of a mental habit, many of these cases could be returned to their homes that under the present system drift hopelessly to utter dementia and death.

The existence of such an institution would also tend to keep before our minds the fact too often forgotten, that many cases of mental trouble are within the province of the physician, and thereby would greater attempts be made to investigate and relieve the underlying physical lesion. In looking over the report of one of your large state hospitals, I find no mention of any attempt to utilize the large amount of material which is at the disposal of the medical authorities, either in thorough physical examination, or in post mortem, that at least some light might be thrown upon the underlying pathological condition. Can any other department of medicine show such negligence? With abundant evidence of the application of the simple principle of surgery to this class of cases, it is criminal to pursue such a course of inefficiency and negligence.

In conclusion:

No. 1. The percentage of pelvic disease among female insane is greater than we had previously supposed.

No. 2. In a certain percentage of the cases, the removal of the disease is followed by restoration of the mental health. The percentage of recoveries after gynecological treatment is sufficient to encourage us. (a) In the further prosecution of this enquiry.

(b) To convince us that pelvic disease in the female insane should receive treatment, and that insanity is no excuse for the neglect of any physical abnormality. (c) The recommendation that a competent gynecologist be associated with all state hospitals for the insane.

CLINICAL NOTES.

FATAL POISONING BY OIL OF WINTERGREEN.

By J. B. McNerthney, M. D.,

TACOMA, WASH.

The infrequency of fatal poisoning by oil of wintergreen, and the small amount of literature on the subject leads the writer to report the following case:

Fred J., age three years, accidentally swallowed three drams of oil of wintergreen. Medical aid was not summoned for some three hours, when Dr. Geo. A. Libby and the writer arrived about the same time.

Examination: The child was in severe epigastic pain, head thrown back, slight opisthotonos, limbs twitching, pupils widely dilated, rapid pulse, slow and labored respiration, the skin hot and dry, marked thirst.

Treatment: The child's stomach was washed, though this proved useless as the drug had been absorbed. The body temperature was maintained by external heat. The heart and respiration by atropin and strychnin. There was temporary improvement, but soon the pulse became weak and thready, stopping suddenly as in chloroform poisoning. A fatal result followed.

An elaborate research of Dr. H. C. Wood (Therapeutic Gazette, Vol. II, Page 76) proved this drug acts physiologically like salicylic acid, that it is capable of causing fatal poisoning. The Medical Examiner N. S. (Vol. VIII, Page 347) gives a case where half an ounce produced in a boy severe vomiting, purging, epigastic pain, hot skin, frequent pulse, slow and labored respiration, though he finally recovered. Again a woman survived after having taken an ounce (N. Y. Medical Journal, 1875), but the same amount has caused death (Ibid, 1867).

When we consider that 169 grains of oil of wintergreen contain 152 grains of methyl salicylate or 138 grains of salicylic acid, we are not surprised at the fatal result.

In a series of experiments performed by the writer on dogs the fatal dose of oil of wintergreen was found to be three drams for a dog two months old, weighing five pounds.

Conclusions:

(1) That the drug acts physiologically like salicylic acid.
(2) That it is readily absorbed from the stomach.
(3) That it kills by paralyzing the respiratory center.
(4) That it is eliminated by the kidneys.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D., Editor in Chief.
JAMES B. EAGLESON, M. D. Managing Editor.

Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash.

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. SEPTEMBER, 1903. NO. 9

THE WASHINGTON ASSOCIATION MEETING AT SPOKANE.

The fourteenth annual meeting of the Washington State Medical Association sustained the reputation for instructive and scientific work, acquired from the character of meetings of recent years. The chief interest centered about the guest of the association, Dr. Victor C. Vaughan, of Ann Arbor. Not alone his formal addresses, but also his discussion of other papers displayed the scientific spirit and keen observation for which he has long been noted. His numerous pupils in the Northwest have ever sung the praises of their former teacher. It has now been the privilege of many others to form his personal acquaintance, who will long treasure the recollection of his friendly spirit and social qualities.

The custom has now become well established of selecting distinguished members of the profession from Eastern cities to participate in the programs of these annual meetings. This is most commendable, and should remain permanent. We trust, however, that undue enthusiasm in this direction may not, at any future time, introduce so great an aggregate of superior talent as to suppress the efforts of the modest home members. Such a tendency has been indicated at some past sessions. As was true at this meeting, this feature of the program becomes a stimulus and a source of profit to all who attend, when arranged in a judicious manner.

While not as numerous as in some recent years, the papers presented displayed careful preparation and some original investigations, covering matters of interest to the profession at large.

Taken as a whole, we believe the program indicates that the profession of the Northwest is keeping abreast of the times and that, though far separated from the main centers of medical thought and teachings, one's progress in the latest professional advances depends chiefly upon his own inclinations and efforts.

THE PHYSICIANS IN ATTENDANCE outnumbered those of any previous meeting in Eastern Washington. Heretofore there has been a scattered representation from the Sound cities, quite in contrast with that of this year. It was distributed as follows: Drs. Eagleson, Coe, Smith, Heg, Willis, Hoffman, Newlands, Hawley, Peterkin, De Beck, Nadeau, Stith, from Seattle; Dewey, Yocum, Willson, McCutcheon, E. M. Brown, Armstrong, Corliss, Smith, from Tacoma; Cox and Durand from Everett; Smith from Anacortes; Mattice from Sedro-Woolley.

VISITORS FROM ADJACENT STATES were welcomed. Drs. Murray and Bernheim, of Butte, and Spellman, of Anaconda, Montana, became a part of us at once, adding to the interest of discussions and establishing bonds of friendship between the professions of the two States. No session of the Washington Association would be complete without the presence of Drs. Coffey and Hutchinson, of Portland. Sufficient time has not yet elapsed since the former's removal from the State for him to become a stranger to it. We trust he may be present for many years, with his annual presentation of new ideas and results of original investigations. Dr. Hutchinson appears to all as in a class by himself. His eloquence and erudition have delighted his auditors whenever he has appeared before them. It is a source of pride to the medical profession to realize that a real orator is numbered among its numbers. May his presence never fail us.

THE SOCIAL FEATURES were well cared for by the local members, thereby sustaining the reputation for hospitality and warm-heartedness which has characterized the Spokane physicians in their entertainments of past years. The absence from the city of Dr. Essig was regretted by all who have associated him with former State meetings, he being a charter member and faithful supporter of the organization. The strangers to the city will ever entertain a happy recollection of this Spokane session.

THE NEW CONSTITUTION has been in force for a year. What effect has it had upon the State Association? Since the old society had a membership of about four hundred and the new association numbers a little over three hundred, on its face there appears a retrogression. In reality a state of health is indicated. While many old members were delinquent in dues for years, a requisite for present membership is the advance payment of dues on the part of each county society, of the members for whom it is responsible. Members at large no longer exist, and their necessary entrance through the county societies will serve as a stimulus for the latter's organization, where none exist at present. It is a proof of the sparsely settled condition of some sections of the State that there is found but one physician in several counties, and at least one has not a single practitioner. There are thirty-six counties in the State, one-third of which have organized county societies, as follows: Chehalis, King, Pacific, Pierce, Skagit, Snohomish, Spokane, Thurston, Walla Walla, Whatcom, Whitman, Yakima. Several others have a sufficient number of physicians to warrant the existence of county societies, and we would urge their establishment at an early date. There is no reason why a very large majority of the physicians of the State should not be enrolled as members of the State Association.

THE OREGON ASSOCIATION MEETING.

While the program of this meeting has not been completed as we go to press, sufficient information is at hand to warrant the anticipation of an instructive and interesting session of the association.

Several men of note are expected from the East. The Portland physicians themselves can always be depended upon to provide papers of value and attraction. Several will be presented on X-ray work, from physical, diagnostic and therapeutic standpoints, by men who do special work along this line. The principal surgical feature will be on the kidney, both medical and surgical treatment. There will also be papers on genito-urinary diseases, neurasthenia, cerebral syphilis and other subjects of interest to all practitioners. We trust there will be a representation from Washington, to whom a cordial invitation has been extended by the Oregon officials, who can be assured of an enjoyable and profitable visit to Portland

THE BRITISH COLUMBIA MEDICAL ASSOCIATION.

The annual meeting of this association has been appointed for October 30 and 31, to be held in Victoria. An interesting program is assured, the details of which are not yet available. In our next issue we hope to present it to our readers. We would recommend to the physicians, to the south of the border, that this will be a most favorable opportunity for making acquaintances with the British Columbia brethren. It will surely be of profit to plan in advance for a brief vacation for the above date.

THE PURIFICATION OF THE MEDICAL PROFESSION.

The address of welcome at the meeting of the State Association was delivered by Judge W. F. Townsend, of Spokane. His text was the problem of ridding the medical profession of impostors and charlatans. The whole address would prove profitable reading, both to our profession and the laity. Among other trenchant and appropriate statements he uttered the following:

"I have always regarded the ministerial, the medical and the legal fraternities as the oldest, the highest and the best to which men have devoted their time and their talents. You will spare inate modesty the task of declaring superiority of one of them over another. It may truthfully be said, that in all times and under all conditions they have existed in some form.

"The ministerial profession is supposed to deal with all of the spiritual matters which concern the race of man.

"The medical profession is intended to safeguard life and health in so far as human agencies may compass that result.

"The legal profession is expected to create, establish and maintain rules of order for the enforcement and protection of individual and property rights.

"The mere statement of the basic principles upon which each of those professions rest proves the necessity for their existence.

"I have an object in directing my remarks along this channel at the present time. There is a popular prejudice against the doctor and the lawyer. If common expression may be taken as an index to public sentiment, they are coming to be regarded as a sort of necessary evil. The time was when this was not so, but it is so now. Let me state one comprehensive reason why matters stand thus. For more than fifty years a class of men whom I shall call 'swash-bucklers' and 'time-servers' have been crowding the ranks. The most monstrous impositions and crimes have been practiced under the guise of professional work. The public conscience and the public heart have been outraged. Multiplied thousands are to-day pretending to practice law and medicine who haven't sufficient honor to prevent cheating themselves, nor sufficient talent and knowledge to entitle them to administer to a sick weasel or to attempt the defense of an outlawed rat.

"These are unpleasant but stubborn facts which must be faced. The conscienceless scoundrel in my profession who gains his ends by falsehood and perjury is no worse than the strutting vagabond who rapes the health and the purse under the colors of the medical fraternity.

"It is high time to close the doors and take up the pass-words. No man can answer the demands of the medical or legal profession who does not possess the intellectual qualifications to enable him to comprehend the work before him, and the moral integrity to attempt to do that work right or not at all. May the day dawn early when the incompetent and the charlatan will stand exposed and be driven forth under the lash of popular condemnation."

Here is presented a problem that has confronted the reputable members of the medical profession since the days of antiquity. So long as man has evil in his heart will he cheat and defraud his neighbor. While in no sense apologizing for the incompetents and criminals in our ranks, and at the same time deploring their existence, we are led to enquire whether they are proportionately more numerous than in other professions and other occupations of mankind. As a class, our profession is composed of honorable and conscientious practitioners. In all discussions of this character we should insist on the recognition of this fact.

We will admit the possession of such a degree of pessimism as not to believe it possible ever to eliminate this objectionable class under consideration. And this is due to the simple fact that the dear public demands and supports such. For generations the process of enlightening the public in these matters has been in progress and the ranks of quackery have more than kept pace with dissemination of general medical knowledge. This being true, to other means than elevating the moral sense of the public must we turn, to hold imposture and medical ignorance in check.

Legislation, unsatisfactory as it has proven in so many cases, offers the most effectual means of accomplishing something specific along these lines. Let us concentrate our efforts to improve and strengthen our medical statutes. Then will follow the days to try the souls and test the patience of their supporters in securing their enforcement. But definite results in obtaining conviction and punishment of charlatans in certain sections of the land, fosters the belief that, if judiciously managed, the same may be accomplished by all advocates of a clean and honest profession. Not alone theories, but actions are demanded, and whoever exhibits the latter consistently will find his efforts suitably rewarded.

Owing to the space in this issue devoted to the report of the State Association meeting and the publication of papers read before it, some of our usual features have been omitted, which will be resumed in the subsequent issue.

TO OUR READERS.

We publish no advertising inserts or commercial notices of any kind in our reading pages. We select our advertisers with much care and accept only those that we can recommend to you as reliable firms.

Drop a postal to them for literature and samples and don't forget to mention that you saw their "advs." in Northwest Medicine.

Managing Editor.

OBITUARY.

Dr. John W. Waughop died August 31, 1903, on board the steamship Moana, off the coast of Cape Flattery, while on the way from Honolulu to Olympia. His death was due to disease of the pancreas, together with chronic endocarditis.

Dr. Waughop was born in Illinois, October 22, 1839. After serving three years in the Civil War he studied medicine in the University of Michigan and Long Island Hospital College, where he graduated in 1865. After six years of practice in White Cloud, Kansas, he moved to Olympia in 1871, where he practiced for nine years.

In 1880 he was appointed superintendent of what is now the Western Washington Hospital for the Insane, at Seilacoom. At this time the asylum consisted of a few wooden buildings, which had been deserted by officers of the United States army stationed there years ago. These buildings were rearranged, whitewashed and warmed for the reception and care of patients, who at that time were above twenty-five or thirty in number. For six years he continued in this manner. In 1886 an appropriation was made by the legislature for the erection of a brick building, it being completed and dedicated in 1887. This has been added to from year to year until now it is the largest institution in the State. The patients have increased in number from the original twenty-five to above eight hundred. A great part of all this is due to the constant energy and efforts of Dr. Waughop, whose one wish and aim was the proper and humane care of the insane. It might be well said that this was his life's work, and he was particularly suited for it. He was kind and considerate at all times, and thus commanded the respect both of employee and patient. One of the strongest features of his personnel was his honor and integrity, which were present upon all occasions.

He would carry out to the letter what he considered to be right and proper, without fear or favor. At the same time he was always ready and willing to listen to reason, providing it was based upon facts. His motto was the golden rule, and his instructions to employees was simply, "Treat the patients under your care in the same manner you would like to be treated by them."

The esteem in which he was held by the inmates under his charge is illustrated by the fact that not infrequently, after having been discharged, they would keep in touch with him by letters, and after a time would return to visit him, asking to be taken back either as a patient or employee. Since his death a number of letters of condolence and tokens of respect have come to the family from old patients, expressing regret that they could not have seen him again, and extending sympathy to the bereaved wife and son.

The original medical society of the Territory of Washington was called into existence at a gathering of medical men in the house of Dr. Waughop, at Olympia, in the early seventies, of which he was the first secretary. It was succeeded, after a few years, by the present State society, of which he was the eighth president. During the lifetime of the first society he was much interested in trichinosis and the animal parasitic diseases in general, delivering lectures before the Academy of Sciences of those old days, illustrated by specimens of the parasites secured from the Olympia butcher shops. He was always sought for by his colleagues as an anesthetist, ever stoutly adhering to chloroform, which drug he used nearly ten thousand times during and since the Civil War, without a death due to it.

Upon the election of Governor Rogers he was dismissed from the State service and, seeking rest and health for himself and family, went to the Hawaiian Islands. Shortly after his arrival he accepted the appointment of government physician on the island of Kanai. Later he was requested by the government to make a thorough examination of the situation in regard to tuberculosis on this island and to report to the government with such recommendations as he thought best. This resulted in the great betterment of the meat supply, for which work he received the thanks of the board of health, and more stringent rules were adopted in regard to tuberculosis.

Dr. Waughop is survived by his wife and son, Dr. Philip R. Waughop.

REPORTS OF SOCIETY MEETINGS.

FOURTEENTH ANNUAL MEETING OF THE WASHINGTON STATE MEDICAL ASSOCIATION.

The meeting was held at the U. S. Court Room, Auditorium Building, Spokane, September 1, 2 and 3, 1903.

TUESDAY MORNING SESSION.

The meeting was called to order at 10 o'clock by Dr. G. W. Libby, first vice-president.

Rev. J. M. Allen, of Spokane, offered the opening prayer.

Dr. R. L. Thomson, chairman ot the Committee of Arrangements, stated that the new Constitution having been adopted, the old State Society had gone out of existence and the State Medical Association, composed of the members of the county societies, had taken its place. Through failure to comply with the rules governing their entrance into the Association, the membership of some county societies were not yet included.

On his motion it was voted that the representatives present from these societies, as well as other former members of the State Society, be given all the privileges of this meeting accorded to duly received members.

On invitation of the Vice-President, Dr. Chas. McCutcheon, President of the Association, took the chair.

The President introduced Judge W. F. Townsend, of Spokane, who delivered the address of welcome.

Dr. Thomson called attention to the program prepared by the Committee of Arrangements, especially noting the plans for social entertainment.

Dr. A. H. Coe read the annual report of the Secretary. On motion of Dr. Armstrong it was referred to the Judicial Committee to make recommendations in accordance with suggestions contained in it.

Dr. J. B. Eagleson read the annual report of the Treasurer. On motion of Dr. A. H. Coe it was referred to the same committee.

The meeting adjourned till 1:30 p. m.

TUESDAY AFTERNOON SESSION.

The President announced that, in accordance with the Constitution, it was in order to elect a Nominating Committee of five members, no two of whom should be from the same county, who would present nominees for elective offices. The following were duly elected: G. W. Libby, of Spokane; P. W. Willis, of King; J. R. Yocom, of Pierce; M. B. Mattice, of Skagit; W. Johnston, of Whitman.

On Motion of Dr. Johnson it was voted to extend the courtesy of the floor to the guest of the Association, Dr. V. C. Vaughan, of Ann Arbor, Mich., and other visiting physicians.

Dr. G. S. Peterkin, of Seattle, read a paper, entitled, "ACUTE GONORRHEA IN THE MALE, AND ITS TREATMENT FROM A HYGIENIC AND ANTISEPTIC POINT OF VIEW."

The paper was discussed by Drs. Morrison, of Spokane, and Kloeber, of Hot Springs.

Dr. P. W. Willis, of Seattie, read a paper, entitled, "A FEW REASONS FOR EARLY OPERATION IN GALL STONE DISEASE."

The paper was discussed by Drs. Coffey and Hutchinson, of Portland, Ore., and Vaughan, of Ann Arbor.

Dr. David De Beck, of Seattle, read a paper, entitled, "RHEUMATIC CHORIORETINITIS." It was discussed by Dr. Hilscher, of Spokane.

Dr. Thomson called attention to the evening reception and ball, at Elks' Hall, to which the Spokane Medical Society invited the members and visitors of the Association.

WEDNESDAY MORNING SESSION.

The meeting called to order by the President. It was voted, on motion of Dr. E. M. Brown, that a committee be appointed to draft appropriate resolutions on the death of Dr. Waughop. The President appointed E. M. Brown, N. G. Blalock and T. L. Catterson.

The President welcomed and extended the courtesies of the floor to Drs. Murray and Bernheim, of Butte, and Spellman of Anaconda, Montana.

Dr. G. W. Hawley, of Seattle, read a paper entitled, "AN ANALYTICAL STUDY OF THE SURGICAL PROBLEM IN PROSTATIC HYPERTROPHY."

Dr. W. S. Durand, of Everett, read a paper, entitled, "ETIOLOGY AND TREATMENT OF PATHOLOGICAL CONDITIONS OF THE PROSTATE, WITH REPORT OF A CASE OF PROSTATECTOMY."

The two papers were discussed by Drs. E. M. Brown, of Tacoma; N. G. Blalock, of Walla Walla; Smith, of Anacortes; S. G. Peterkin, of Seattle; Bernheim, of Butte; Spellman, of Anaconda.

Dr. E. M. Brown, of Tacoma, read a paper, entitled, "SURGICAL TECHNIQUE." It was discussed by Drs. P. W. Willis, and J. B. Eagleson, of Seattle; R. C. Coffey, of Portland.

WEDNESDAY AFTERNOON SESSION.

The meeting was called to order by Dr. E. L. Kimball, of Spokane.

Dr. N. M. Baker, of Spokane, read a paper, entitled, "THE KIDNEYS IN PREGNANCY."

Dr. R. C. Coffey, of Portland, read a paper, entitled, "CONSERVATIVE, FINISHED SURGERY IN THE TREATMENT OF PYOSALPINX."

Dr. Woods Hutchinson, of Portland, read a paper, entitled, "RECENT INVESTIGATIONS IN THE PATHOLOGY OF NEPHRITIS."

Dr. Victor C. Vaughan, of Ann Arbor, Mich., read a paper entitled, "THE HYGIENIC AND DIETETIC TREATMENT OF CHRONIC NEPHRITIS."

Dr. F. H. Coe, of Seattle, read a paper, entitled, "THE SURGICAL TREATMENT OF BRIGHT'S DISEASE."

The papers were discussed by Drs. Willis, of Seattle; Bernheim, of Butte; Catterson, of Spokane; Pieucel, of Dayton; Spellman, of Anaconda; De Beck, of Seattle.

On adjournment the members and visitors were invited to a trolley ride about the city.

The Association and its guests were entertained, in the evening, at a reception and musical at the residence of Dr. and Mrs. Fred Essig.

THURSDAY MORNING SESSION.

The President presided.

Drs. Hutchinson, Vaughan and Coe continued the discussion of the previous afternoon.

The Committee on Nominations presented the following names for officers for the ensuing year: President, F. H. Coe, of Seattle; First Vice-President, W. C. Cox, of Everett; Second Vice-President, S. B. Wilson, of Colfax; Treasurer, J. B. Eagleson, of Seattle; Judicial Committee, E. M. Brown, of Tacoma, and R. N. Gordon, of North Yakima. Delegate to American Medical Association, H. W. Dewey, of Tacoma; alternate, R. H. Thomson, of Spokane.

It was voted to suspend the rules and instruct the Secretary to cast the ballot for these nominees.

The special committee on the death of Dr. Waughop reported the following resolution:

Whereas, we have learned with regret that one of our members, Dr. J. W. Waughop, so long connected with and conducting the State Insane Asylum at Steilacoom so ably and satisfactorily, and who was always in the front rank of our profession in upholding its dignity and advancing its interests, as evidence of which this Association unanimously elected him to the highest position in its gift, that of its eighth President;

Therefore, be it resolved, That in the loss of our beloved brother and colaborer we have lost one of our best members, and his family a loving husband and father, to whom we offer our sympathy and condolence in this irreparable loss, and

Be it further resolved, That these resolutions be spread upon the minutes of this Association and a copy of them be sent to the family.

On motion of Dr. F. H. Coe, the President was instructed to appoint a committee of three to attend the funeral of Dr. Waughop.

On motion of Dr. E. M. Brown, it was voted to make a suitable report concerning other members of the Association who have died during the past year.

The following resolutions were duly introduced and passed:

Resolved, That the thanks of this Association be extended to Hon. C. H. Hanford, of the U. S. District Court, for the use of the court rooms in Spokane, for this meeting.

Resolved, That we desire to express our appreciation of the kindness of Dr. V. C. Vaughan, of Ann Arbor, in gracing the meeting with his presence, and by his addresses adding so materially to the interest in scientific medicine.

Dr. Woods Hutchinson, of Portland, read a paper entitled "LET THE LUNGS ALONE IN CONSUMPTION." It was discussed by Drs. Musgrove, Vaughan, Wilson, of Pullman, F. H. Coe.

Dr. R. L. Thomson, of Spokane, presented a boy of seventeen, suffering from congenital, syphilitic, interstitial keratitis. After comments on etiology and treatment, he was examined by the members.

The Judicial Committee presented the following recommendations:

1. That the fiscal year of the Association correspond to the calendar year, that the dues paid for this year entitle those paying them to good financial standing in this Association until Dec. 31. 1903.

2. That this Association regards as a question of honor that the delinquents should pay their debts; that the Secretary notify each

secretary of county societies of the delinquents in dues to the State Association, with urgent request that the county societies use every effort to have the same collected.

3. That there shall be a Committee of Legislation of seven members, of whom five shall be appointed by the President, he and the Secretary being ex-officio members.

THURSDAY AFTERNOON SESSION.

The President presided.

Dr. W. C. Cox, of Everett, read a paper entitled, "UNUNITED FRACTURES, WITH REPORT OF CASES." It was discussed by Drs. Eagleson, Coe, Smith and Hawley, of Seattle; Durand, of Everett.

Dr. N. G. Blalock, of Walla Walla, read a paper entitled, "WYETH'S TREATMENT OF ANGIOMA."

Dr. Hawley read a paper, written by Dr. Kenelm Winslow, of Seattle, entitled, "THE APONEUROSES THE SUPPORTING STRUCTURES OF THE ABDOMINAL WALL; THE APPROXIMATION IN ABDOMINAL OPERATIONS FOR THE CURE AND PREVENTION OF HERNIA."

Dr. C. A. Smith, of Seattle, gave an address on NORTHWEST MEDICINE, explaining the plans and purposes of the Journal. On motion of Dr. Blalock, it was voted to make this the official organ of the Association.

Dr. Charles McCutcheon, of Tacoma, delivered the annual President's address.

Dr. Peterkin spoke on the prophylaxis of venereal diseases and, on his motion, it was voted that the President appoint a committee to cooperate with the Central Committee on prophylaxis of venereal diseases, of the American Medical Association.

Dr. Blalock spoke in favor of considering the recommendation of the President and, on his motion, it was voted that hereafter the President's address be delivered on the first day of the session.

On motion of Dr. F. H. Coe, it was voted to place the salary of the Secretary at $100 for the ensuing year.

Dr. C. A. Smith presented an invitation, in behalf of the King County Medical Society, for the Association to hold it's next meeting in Seattle, which was duly acceped.

Resolutions were passed, of thanks to those outside of the Association who had presented papers; and to the Spokane County Society for the courtesies extended during this session.

The Association formally adjourned.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. HOLT, M. D.; Secretary, F. J. VAN KIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in Odd Fellows' Hall, Whatcom, Wash., Aug. 10, 1903. The minutes of the last meeting were read and approved.

Dr. A. MacRae Smith reported that $36.75 had been expended by the entertainment committee, $6.75 of which had been paid. Upon motion by Dr. Compton a warrant was ordered drawn upon the treasury for the remaining $30.

A communication from Dr. Axtell relating to the enlargement of St. Luke's Hospital, was read by the secretary. The subject of better hospital facilities occupied the attention of the society for the entire evening. Speeches were made by Drs. Compton, Smith, Gosnell, Holt, Goodheart, Teel, Hunt, Van Kirk and others.

By unanimous consent, the president was directed to appoint a committee to collect information concerning the subject and report at the next meeting. Drs. Compton, Goodheart and Van Kirk were selected to serve on this hospital committee. The meeting adjourned to meet the second Monday in September.

RECENT PROGRESS IN MEDICINE AND SURGERY

GENITO-URINARY DISEASES.

Edited by

G. S. Peterkin, M. D. G. W. Hawley, M. D.

The Detection of Renal and Vesical Calculi by Means of the X-Rays. (By Henry Perkins Moseley, M. D., New York Medical Journal, March 7, 1903.)

In this article the author briefly endeavors to show the practical status of the X-ray as a clinical aid to the diagnosis of renal and vesical calculi and says that the fluoroscope is absolutely unsatisfactory for this purpose because:

First, the character of the parts greatly interfere with the quantity of fluoroscopic rays.

Second, the object is often very small and cannot be brought near enough to the screen.

Third, the necessity and inability of properly preparing the observer's eyes.

The radiograph is the only positive means of detecting renal and vesical calculi by the X-ray. Good radiographs are necessary, and two should be prepared before an opinion can be formulated, and a negative must show:

(a) A good difference between tissues.

(b) Outlines of the vertical bodies, intervertebral spaces, the transverse and spinous processes.

(c) the last rib.

(d) The psoas, ilacus and quadratus lumborum muscle. A plate not smaller than 11x14 inches must be used, and if the above conditions are fulfilled and the calculus not too small it will cast a perceptible shadow.

He then gives some directions as to the distance of the target of the tube, advises placing it over the umbilicus from 18 to 24 inches from the plate, on which the patient lies flat on his back. Directions are also given as to how the patient should act during exposure, and in the preparation of the patient he lays stress upon the fact that the gastrointestinal tract should be prepared almost as carefully as for a celiotomy. He likewise lays special emphasis upon the interpretation of the radiograph, stating that it requires experience, great care and much patience, and gives some of the essential points in examining negatives, as to the character of the light necessary and the position in which the plate should be held, etc. Says fat people are very difficult subjects, even under favorable circumstances. The possible sources of error in interpreting negatives are:

1. Defective plates.
2. Air bubbles on plate.
3. Air in gut.

As to the variety of calculi, he remarks that Dr. C. Leonard, of Philadelphia, to his knowledge, is the only observer who claims to have seen pure uric acid calculi in a living subject. Calculi of oxalates, phosphates, and the combination of the different urinary salts usually give good shadows. As regards vesical calculi, he regards the examination of these as much simpler than those in the kidneys or ureter. And he concludes by giving the opinion of Dr. A. J. McCosh, who says: "If an expert observer sees in three different plates a kidney stone, I should regard the evidence as conclusive, provided other symptoms were present; without other symptoms, I should regard it as only probable." Dr. F. Tilden Brown says: "As for a positive diagnosis, No. For a probable, Yes. Especially in conjunction with ureter catherization." Dr. Francis H. W. Williams: "If a negative does not show calculi, it does not exclude its presence. On the other hand when all suitable precautions have been taken, indication of calculi on satisfactory negatives, affords good evidence of their presence when taken in connection with the clinical history." PETERKIN.

REPORT OF CONTAGIOUS DISEASES.

To the Washington State Board of Health for August, 1903.

COUNTIES.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams	1	0	0	0	0	0	10	0
Chehalis	0	0	0	0	1	0	0	0
Cowlitz	5	0	0	0	2	0	3	0
Douglas	1	0	1	0	0	0	0	0
Garfield	0	0	5	0	0	0	3	0
Island	9	0	0	0	0	0	0	0
King	0	0	8	0	0	0	0	0
Kitsap	0	0	0	0	1	1	0	0
Kittitas	0	0	0	0	0	0	7	0
Lewis	0	0	0	0	0	0	2	0
Okanogan	1	0	0	0	0	0	0	0
Snohomish	0	0	1	0	0	0	0	0
Walla Walla	4	0	5	0	4	1	26	0
Whatcom	0	0	0	0	1	1	7	1
Whitman	10	0	0	0	0	0	0	0
Yakima	0	0	1	0	0	0	7	7
Seattle (city)	2	0	23	0	6	1	7	5
Spokane (city)	1	2	6	0	0	0	7	6
Tacoma	0	0	0	0	3	1	1	0
Total	34	2	53	0	21	5	87	19

While the reports are becoming more complete, they are not yet is much so as we wish. A few counties have not yet appointed health officers and a few health officers fail to make reports. We shall hereafter indicate the health officers whose reports fail to reach us.

A new outbreak of smallpox occurred in Island county and also in Whitman county, but in both prompt and rigid isolation has held the disease within close limits. Otherwise a general improvement is noted throughout the State. Physicians generally fail to report typhoid fever, and the county health officers are requested to again call the attention of the physicians in their counties to the fact that this is now required.

Elmer E. Heg, Secretary.

MEDICAL SOCIETIES.

NAME. MEETINGS HELD.

Washington State Medical Association..........................1904—Seattle
President, F. H. Coe, M. D.; Secretary, A. H. Coe, M. D.

Chehalis County Society..........................Second Tuesday—Aberdeen
President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

King County Society..........................First and Third Monday—Seattle
President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

Pierce County Society..........................Second and Fourth Tuesday—Tacoma
President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.

Skagit County Society ....
President, F. B. West. M. D.; Secretary, C. C. Harbaugh, M. D.

Snohomish County Society..........................First Thursday—Everett
President, W. C. Cox, M. D.; Secretary, C. B. Betts, M. D.

Spokane County Society..........................First Thursday—Spokane
President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.

Walla Walla County Society..........................Second Wednesday—Walla Walla
President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.

Whatcom County Society..........................Second Monday—Whatcom
President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

Whitman County Society ....Oct. 2—Tekoa
President, G. B. Wilson, M. D.; Secretary, E. Maguire, M. D.

Yakima County Society..........................First Tuesday—North Yakima
President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.

Oregon State Medical Association..........................Sept. 29 and 30—Portland
President, H. W. Coe, M. D.; Secretary, A. D. Mackenzie, M. D.

City and County Medical Society of Portland..........First Wednesday—Portland
President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.

Multnomah County Medical Society..........................First Tuesday—Portland
President, E. M. Crockett, M. D., Secretary, L. Victoria Hampton, M .D.

Montana State Medical Association..........................May 18 and 19, 1904—Butte
President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.

Silver Bow Medical Society...............Second and Fourth Wednesdays—Butte
President, Donald Campbell, M. D.: Secretary, J. A. Donovan, M. D.

Idaho State Medical Association..........................Oct. 8 and 9—Boise
President, George Collister, M. D.; Secretary, E. E. Maxey, M. D.

Northern Idaho District Medical Society..........................June 9—Lewiston
President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.

Southern Idaho District Medical Society..........................July—Hailey
President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.

British Columbia Medical Association..........................Oct. 31 and 31—Victoria
President, O. M. Jones, M. D.; Secretary, C. J. Fagan, M. D.

Vancouver Medical Society..........................Vancouver
President, R. C. Boyle, M. D.; Secretary, J. S. Conklin, M. D.

New Westminster Medical Society............Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal.

SEATTLE NURSES' BUREAU

If you need the services of a Graduated Nurse call on the Superintendent

MRS. A. W. HAWLEY

1115 Madison Street, or Phone John 411, and she can supply you on short notice.

Graduated Nurses' Association

NAME.	QUALIFICATION.
BEAN, MISS ALTA	Graduate Grace Hospital, Detroit.
BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
CONNELLY, MISS LOU	Graduate Asbury Hospital, Minneapolis.
CUDHIE, MRS. M. A	Graduate St. Luke's Hospital, St. Louis.
CROWL, MISS FLORENCE I	Graduate Seattle General Hospital.
DAM, MRS. EVA L	Graduate Seattle General Hospital.
DE VECKMON, MRS. E	Graduate Seattle General Hospital.
FREMMING, MISS THORA H	Graduate City and County Hospital, St. Paul.
FEEHAN, MISS ANNA	Graduate St. Joseph's Hospital, St. Paul.
GREEN, MRS. ANNIE G	Graduate Good Samaritan Hospital, Portland.
GREGG, MISS MINNIE	Graduate Women's Hospital, Syracuse, N. Y.
HUGHES, MISS M. A	Graduate Dublin General Hospital.
HUBBS, MRS. F. H	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
KENNEDY, MISS	Graduate St. Luke's Hospital, Duluth ; Sloan Maternity, New York.
LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W	Graduate Royal Jubilee Hospital, Victoria.
RAY, MISS JENNIE	Graduate Seattle General Hospital.
SHROEDER, MISS H. L	Graduate Seattle General Hospital.
SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
SLATER, MISS MAME	Graduate Eastern Illinois Hospital.
SHIACH, MISS MARY	Graduate Seattle General Hospital.
STRAHL, MISS INEZ	Graduate Asbury Hospital, Minneapolis.
STRONACH, MISS MINNIE	Graduate Brompton Hospital, London.
WAGNER, MISS IDA	Graduate Riverside Hospital, Milwaukee.
WANAMAKER, MISS NIDA	Graduate Seattle General Hospital.

NORTHWEST MEDICINE

October, 1903.

ORIGINAL CONTRIBUTIONS.

A FEW REASONS FOR EARLY OPERATION IN GALL STONE DISEASE.*

By Park Weed Willis, M. D.
SEATTLE, WASH.

Recently several cases of gall-stones have come under my observation and each one gave a practical sermon on the subject of early operation in this disease. It was only a few years ago that there was considerable discussion in the profession as to the advisability of an early operation in appendicitis. As usual truth has triumphed, and now practically the whole profession is agreed that early operation is the only proper treatment for the average case of acute appendicitis, with only a corporal's guard left to dally and delay, and cause the surgeon trouble by so called medical treatment.

History is repeating itself at the present time on the subject of gall-stones. Dr. Roswell Park in a recent article draws comparison between the gall-bladder and appendix, considering them both useless organs and consequently, when the seat of a pathological condition, should be removed as early as possible. Our friends who are opposed to operative measures will possibly call attention to the wild gynecological surgery of a few years ago when ovaries, diseased or normal, were removed without reserve. In that case, however, the profession opposed such recklessness and now we even patch up and try to save diseased ovaries because that organ is of vital importance to the economy and the well being of the patient. In the case, however, of the appendix and gall-bladder, we have organs which so far as known are of slight, if of any value to the economy, so that with them we have only the one question to decide, namely: Is there a pathological condition present? If so, from the fact that they are "neither useful nor ornamental," they should be removed.

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*Read before the Washington State Medical Association, Spokane, Wash., Sept. 1, 2 and 3, 1903.

For a patient in the early stages of gall-stone disease, we can offer the prospect of almost certain and permanent relief by means of an operation which entails very slight risk to life and a comparatively short term of disability. If, however, they elect the method of having their alimentary tracts greased with sweet oil, we can very surely picture for them many repeated attacks of gall-stone colic, with gastric disturbance more or less constant during the interval and with disturbance of the general health from absorption of pus from the infection which usually accompanies this disease. In addition to this, from the constant irritation of these stones, there is very likely to develop malignant change and certain death after long suffering.

Empyema of the gall-bladder may develop with its train of symptoms, chills, fever, etc. Painful adhesions may form about the parts; and abscess may form in any adjacent organ, or the gall-stones may ulcerate into them. The stones, instead of remaining in the gall-bladder when the disturbance is great enough from the patient's point of view, may migrate down into the cystic duct and later on to the common duct, when we will have jaundice sometimes, sufficiently severe to cause death, and at the best causing a cholemic condition which is distressing to the patient. Then we can promise that the patient, in many instances, will finally give up sweet oil and other so called medical treatment and come to the operating table, not with the simple operation above described, but one which is often among the most difficult in surgery, and if malignant change has already taken place, the death warrant of the patient is practically signed.

In the above description I have really only mentioned salient points as far as complications are concerned. Ochsner quotes Mayo-Robson who gives twenty-eight different complications of gall-stone disease. Among forty-eight cases operated on by Ochsner during 1901, there were no deaths among those which were uncomplicated, and in every case in which there was a death, it was due to a complication which would have been avoided and the patient's life saved by an early operation. Another important point in regard to his series is, that less than half of them had well marked attacks of biliary colic, the diagnosis having been made from other symptoms, the most important of which were dyspepsia and tenderness over the gall-bladder and ducts. If we wait until there is an attack of colic it is well, unless there are strong reasons to the contrary, to postpone operation until the interval.

During the past year three cases of cancer of the gall-bladder have come under my observation and I ask your indulgence while making a very brief report of these and of seven gall-stone operations.

Case I. A few weeks ago I was called to see a married woman, Mrs. S., age 42, referred to me by the kindness of Dr. Minnie Allison, of Seattle, who had suffered from gall-stone attacks for several years and had been jaundiced and had hectic symptoms for two months. She had typhoid fever four years ago and passed a stone one year ago. At the time I was called she was having an exacerbation of her symptoms, there being more jaundice and her temperature running as high as 104 degrees. At my first visit I advised waiting for a short time to clear up the acute symptoms. After about ten days, however, it was evident from the continuation of the symptoms and increasing exhaustion that if any relief could be given the operation must be done at once. At the operation I found and removed one stone from the common duct, and the gall-bladder had disappeared; the pylorus and duodenum were adherent to the liver at this point and were the seat of a cancerous mass which immediately broke down with the attempt to separate the adhesions. After the operation the patient was more comfortable and the jaundice began to disappear but her exhaustion increased and she died ten days later. A post mortem verified the conditions found in the operation.

Case II. I was called to see a lady 81 years old who was much emaciated and suffering a great deal of pain. She stated that this pain had continued more or less for thirty years. I made a diagnosis of gall-stones with cancer, although I was uncertain about the location of the latter. In this case nothing could be done except relief from suffering by opiates. She died in a few weeks and on post mortem we found the gall-bladder filled with stones, with dense adhesions around it, and the appendix inflamed and adherent to it, and the gall-bladder the seat of cancer.

Case III. Mrs. G., age 55, the daughter of the patient just mentioned, came into the room at the time of my first visit and said she had suffered for three months just like her mother. Seven years before she had a similar attack which was diagnosed as grip. No history of typhoid. On examination I found the temperature elevated and tenderness over the gall-bladder and right kidney. The urine contained albumin and many casts. After having her under observation a few days I decided that it was gall-stones and verified the diagnosis by removing sixteen stones which were about the shape and size of dice. Her wound healed completely and she felt better than she had for years.

Three months later, while standing in a car which started with a jerk, she grabbed a strap with her right hand and as she was a rather fleshy, heavy woman, it caused a severe strain of her right side and she felt something give way. She suffered then considerable pain and when I saw her a few days later, there was a fluctuating tumor in the scar and the skin looked inflamed and angry around it. This was opened and a quantity of bile, which was probably mixed with pus, discharged. The wound completely healed in five or six weeks and she was again perfectly well. I think the accident in the street car probably broke the adhesions of the gall-bladder to the abdominal walls and this was followed by slight infection.

Recently I had the pleasure of witnessing a post-mortem on the body of a man about 70 years old. He had suffered for several months with disturbance in the region of the gall-bladder, upon which no operation was performed because he had valvular heart trouble. There were stones in the gall-bladder and one in the common duct which was floating and could be easily pushed into the hepatic duct. The gall-bladder was the seat of a cancer. While making this examination there was a post-mortem in the same morgue, on the body of a man who had died of some obscure cerebral trouble. I removed the gall-bladder which contained some stones, although there was no history of any symptoms referable to that organ.

Case IV. I was called to the country to see a married woman who was deeply jaundiced and suffering with severe gall-stone colic and had been in that condition about five days. Temperature was high, pulse rapid and weak. She was brought to the hospital and it seemed as though the only hope of recovery was operation. When the operation was begun she was breathing seven or eight times a minute. On questioning the anesthetist he said she was breathing that way when he started the anesthetic. I had seen her one and a half hours before when her respiration was practically normal. With this condition of affairs I made a hasty exploration, stitched up the wound, put her to bed and she died three or four hours later.

This patient was moribund when the operation was begun and it would not have been started had I known her condition when the anesthetic was commenced, although it would have made no difference in the outcome. Her history was not obtained, but I have no doubt that, if the opportunity had been given, the diagnosis could have been made much earlier.

Case V. Miss H., age 27, having suffered four years from dyspeptic symptoms especially pain in the epigastrium, came to me with a temperature of 104 degrees and said she had felt miserable for four weeks, having had chills, weakness and attacks of palpitation and some pain in the right side. There was diffuse tenderness over the abdomen, more marked on the right side. The temperature subsided after some days and the pain largely disappeared but persisted on the right side and some vomiting continued. Ten days after entrance to the hospital she had acute pain in region of gall-bladder with severe and frequent emesis. This attack was apparently precipitated by eating some oysters in broth. The temperature now ranged from 102 to 105 degrees. In another week the temperature reached normal, although there remained slight tenderness over the gall-bladder. At the operation, three weeks after admission to the hospital, we found the gall-bladder thickened and enlarged, the wall being about one-third of an inch thick, and it contained about a pint of pus and one hundred twenty-one stones.

During the operation a great deal of packing was used to prevent infection of the peritoneum and then the wound was well packed with gauze around the gall-bladder, which was stitched in the wound. Her recovery was uneventful, the sinus closing completely about two and one half months after operation.

Case VI. In January, 1901, I was called to see Mrs. M., age about 40. She was deeply jaundiced and much emaciated, having been sick since September with attacks of gall-stone colic, vomiting a great deal of the time, there not being a week in that time during which she was free from pain. After having a regular physician for some time she went to a quack who treated her for stomach trouble, and assured her that she had no gall-stones. I then visited her and she consented to have an operation, although she was in a serious condition at the time with high pulse and irregular fever.

At the operation I found a contracted gall-bladder with two large stones in the cystic duct and one in the common duct. I removed these and sutured the opening in the common duct with fine silk, stitched the gall-bladder to the wound, inserted drainage and also placed a drain of gauze down to the opening in the common duct. The skin immediately cleared up, the patient took on flesh and in a few weeks did not look like the same woman. Her sinus discharged for nearly two years, usually a colorless fluid but occasionally bile and finally, on account of return of pain and this sinus, I operated upon her a second time and removed a small stone from the cystic duct, and also a portion of the gall-bladder. She made an uneventful recovery the wound closing completely.

This stone was probably a fragment from the stones previously found, as one of them was crushed in its removal. This patient was in a desperate condition when I first saw her and would undoubtedly have died in a short time, had she not been relieved by the operation.

Case VII. One of my recent cases is a splendid illustration of the advantage of an early operation. Mrs. L. age 24, the mother of three children, three and two years and four months respectively, gave the following history: As long ago as she could remember as a little girl she had more or less distress in her stomach. Her first attack however of sharp pain was in September, 1900, the pain lasting three hours. The next attack was in October, 1901, when there were five or six, a week or so apart. After one of these I saw her but found no symptoms. During the summer of 1902 she had many light attacks. In April, 1903, when her baby was only a week old, she had a severe attack and another a week later, lasting three days. The last of May she again had pain and at this time I found local tenderness and made the diagnosis of gall-stones. On account of nursing her baby she preferred to wait until later for the operation.

On July 26 she had another attack which was very severe and lasted until I was called, August first.

She then decided upon an operation although several of the neighbors advised her to try sweet oil and a druggist advised all kinds of methods in preference to the operation and the husband wrote to a prominent physician of Chicago, who replied, advising them to avoid an operation if possible, saying that it was a fad with the doctors to use the knife. In the face of this conglomarate mass of professional opinions, she decided to take the slight risk of an operation and be rid of the gall-stones, which were especially painful during the attacks, and in the interval she was in constant fear of one coming on.

The operation was unusually easy. The patient was placed in the reversed Trendelenberg position, with an Edebohls cushion under the liver. The gall-bladder presented in the wound and about sixty-five stones were removed, varying in size from a pin head to a hazel nut. The gall-bladder, with a drainage tube in it, was then stitched to the wound and the abdomen closed. The tube was removed in five days and the stitches in eight days. There was very little discharge of bile at the time, and the wound was completely healed nineteen days after the operation. The edges of the wound in the gall-bladder were not stitched but the tissues, about three-fourths inch back from the edge, were sutured with cat gut to the peritoneum and fascia. This allowed the cut edges of the gall-bladder to insert and thus hasten the healing.

In the above cases it will be observed that there is only one uncomplicated, the others presenting complications of varying severity from a nephritis, from which prompt recovery took place after removal of stones, to malignant disease which had its customary ending. Many other patients with gall-stone disease have recently come under my observation who have recovered from their attacks of colic and, rather than submit to operation, have gone about their daily vocations with this stick of dynamite in the abdominal cavity.

It is necessary to educate the public in this as in other diseases. It is not difficult at the present time to secure the acquiescence of a patient stricken with typhoid, when we ask him to go to bed for absolute rest and restricted diet. It is not specially difficult, either, to persuade the average patient that a diseased appendix is better outside than within the body. All this comes about from the success of the proper treatment during the past several years and the disastrous results of procrastination. Gall-stone surgery is yet so young that very few patients will come to you and say: "I have gall-stones and want them removed," but for some time to come it will be our lot to study carefully our patients and learn which ones are suffering from gall-stone disease and then logically urge upon them the advisability of early operation and picture to them the numerous disadvantages of delay.

Personally, I somewhat question the statement that the gall-bladder has no function, and for this reason if the organ itself is in a fairly healthy condition, it is my judgment that it should be left *in situ* and, if it is left and drained as will often be necessary, the convalescence is necessarily more prolonged than for a closed wound. With the exception of these drawbacks I believe it would be a matter of a short time until gall-stone disease would be treated exactly as we now treat cases of appendicitis. To bring about this ideal condition of affairs, it is highly desirable for the family physician or medical practitioner to be acute and careful in his diagnosis and thus bring these cases before the surgeon at the earliest possible moment. It is not at all necessary for the physician, or even the surgeon to be sure of the condition before making an exploration. In fact it is very often desirable to make an exploratory incision and find out the disturbing element and at the same time give it proper treatment. It is unnecessary to add here that in such a case the patient should be fully advised as to our doubts and exactly why we wish to perform the operation. To secure the best results it is of course necessary to have the proper surroundings. These operations, to be safe, should be done in a good hospital, in which the nurses have the spirit of asepsis so thoroughly imbued that there will be no weak links in our aseptic chain, and I believe also that the surgeon should study the details of aseptic technique until he is a positive crank on the subject. The patient with gall-stones is at all times in danger from the various complications but, unless the above conditions can be fulfilled, he is even then safer than he would be with an operation which is not perfect in its aseptic detail.

Although surgery of the biliary passages s still young, there has been sufficient work in this line, with results so flattering, as to merit the greatest confidence of physicians and their patients who suffer from gall-stones.

DISCUSSION.

Dr. Coffey, of Portland, said there was nothing to discuss as to the advisability of early operation. The most important consideration is that of early diagnosis because it is made in so small a proportion of cases. It is only a few years since a good authority stated the limit had been reached in abdominal surgery. Since then much greater progress has been made and the speaker believed even more would be made in the future. We must diagnosis between diseases of the gall bladder and stomach. We have just begun on the study and surgery of the latter. The danger of gall-bladder operations is slight in the hands of an able surgeon.

Dr. Hutchinson, of Portland, stated that the function of medicine is clearly getting to be very limited. Now we need only to ask the patient for a roving commission to open the abdomen and remove all superfluous organs. The gall-bladder is really useless. It is the most variable organ in the lower animals, being present in only about half of the domestic animals, and varying greatly in size. It has no use as a reservoir and is an obsolete remnant, like the appendix. It should be removed whenever causing trouble. The difficulty lies in making the diagnosis.

The doctor does not believe gall-stones are the causes of troubles like cancer, but vice versa. About five per cent. of males and fifteen of females have gall-stones, while one in two thousand have cancer, as shown by autopsy. He cannot believe the essayist's cases prove that stones caused the cancer and that the latter would have been avoided by removal of the former. A very small proportion of patients with stones have symptoms. In some cases they are the cause of dietetic disturbances as is true of appendicitis.

Dr. Vaughan, of Ann Arbor, remarked that any evidence of recurrence called for operation, as repetition of pain and fever. There may be hour-glass contraction, relieved only by operation. There are no gall-stones without infection, resulting from bacteria. Infection may occur with or without stones and is cured only by operation.

Dr. Willis said that formerly the cardinal symptoms of jaundice and presence of a tumor were necessary for a diagnosis, but they may be absent. Gastric symptoms and tenderness are of great importance. We have nothing to do with the eighty per cent. of cases without symptoms. The other twenty per cent. must be considered, many of whom can be relieved from a fatal condition by operation.

A PHILOSOPHIC REVIEW OF THE CROWNING SIN OF CIVILIZATION.

By Ernest Crutcher, M. D.,
GREAT FALLS, MONTANA.

Abortion! A word of hideous sound; one so horrid in note as to be used in whisper.

Abortionist! A term than which no other appellation is more execrable.

The practice of this abomination is one so heinous as to merit the condemnation of the world. Yet since the time of Moloch, in the days of ancient Judea, it has been practiced to a degree not comprehendable save by physicians and priests. So common has it become in our own days of enlightenment that no community of one hundred souls can be found where are not some who lend secret aid to unwomanly females or lewd, selfish men, who seek to hide their sins of concupiscence by destruction of immature progeny. Nor must it be suspected that unmarried women are the chief sinners against the law of their life, and for which law they were created women. Women honestly married, leading maritally virtuous lives, do not disdain to resort to every device in the effort to avoid childbearing.

There is not a doctor in any community who is not occasionally besought by inhuman women or men, false to the object of their creation—the reproduction in kind—to aid in the prevention of conception or dislodgment and destruction of fecundated ova. No price is too great if only relief can be had.

Incalculable is the mass of drugs of divers kind (mostly useless) bought by unwilling, though potential mothers and fathers, married and unmarried, in desperate determination to be rid of the evidence of sin or the incubus of childbearing and resultant care.

In every community are found conscienceless individuals whose chief revenue is from lending aid to this monstrous sin. Nor is the offense confined to the medical profession. Women with a smattering of medical information, emboldened by the promise of gain, stimulated by the pruriency of perverted sensibilities, lost to the pricks of conscience, and brazen with the effrontery of ignorance, readily resort to practices which bring to premature graves many of the fairest women of the land. Even physicians, invested with the authority of the state to follow the art of healing and doing good to their fellow men, are not above reaping the fruit of blood money from the teeming suppliants for relief from the cares or social exposure incident to childbearing.

In every daily paper are flaunted advertisements of pills and potions for "women in distress" promising "speedy relief," etc.

How modest is the press and pulpit of our day. How indelicate to refer to this monstrous crime in print or from platform! There is no more common form of sin than this, and having fewer condemnations from the moralists. Why is this so?

Many are the reasons.

First, most people live in "glass houses." Who dare deny it?

It is so common there are few in this civilized land who, if free from it themselves, have not relatives whom they know or suspect of involvement.

It's very hatefulness makes it obhorred, and only to be mentioned under breath.

It is classed with the tabooed sexual sins, reference to which is rarely made. Books on the subject, even, are kept under lock and key, because of the mawkish sentiment of this degenerate age.

Any reference to sex nowadays is immodest, and the ignorant youth of both kinds suffer in consequence of having learned they are male or female. They are as much surprised in the discovery as Adam and Eve when they first "knew they were naked."

These are but few of the reasons. A recent writer (Goodell) in a medical publication, says: "Undoubtedly the worst forms of women's diseases come from the following three causes: * * * criminal abortion and prevention of conception. The most common of these three causes of ill-health is the prevention of conception—a deplorable practice, which, like the plague of the frogs, creeps into our 'houses and bedchambers and beds.' It comes from the dainty dilettanteism of our women, which shrinks from having patrician pleasures and esthetic tastes disturbed by the cares of maternity. It comes from fashion, from cowardice, from indolent wealth and shiftless poverty. It comes from too high standard of living, which creates many artificial wants and demands many expensive luxuries. The standard of morality with regard to the sexual relation obtaining in communities is low. So low, indeed, has it fallen that I have known clergymen either themselves practicing preventive measures or abetting their wives in them, and physicians of repute teaching their patients how to avoid offspring."

To these practices are attributable the ill-health of the women of civilization.

"Why is it the waiting rooms of doctors are crowded with querulous, complaining women—women with groin aches, backaches, headaches, spineaches and either without sexual feeling or too weak to indulge it? Why do so many women break down either shortly after marriage or very soon after their first child? It is because the majority of them are trying either not to have children or to limit their number."

* * * * * * * * * *

The solution of the divorce evil? It is here.

The sex relation underlies the foundation of society. A man is not a man nor woman woman because of mere difference in physical conformation. Love is no simple intellectual condition. It has an alloy of the physical with the spiritual, "the grossest mould so interfluxed with the more ethereal that the one finds its most passionate expression in the fruition of the other."

In olden days, before the introduction of French abominations designed to interfere with child bearing, the spirit of motherhood animated woman, and the number of "olive branches" about the family table was reckoned as so much additional happiness.

The chief prayer of the ancient Israelite was not for immortality, and supine heaven, but for numerous children. In no place did Moses promise his followers heaven or immortality. Their aspirations were wholly "of the earth earthy"—to possess a land flowing with milk and honey, to own large flocks, to enjoy long life and have large families. Isaac's blessing on Jacob was temporal: "the dew of heaven, and the fatness of the earth, and plenty of corn and wine." The promise to Abraham was that his seed should "surely become a great and mighty nation."

The animating principle of the books, traditions and teachings of all past ages, till patrician Rome and decadent France, was love of children.

No nobler specimens of humanity were ever produced than were the inhabitants of old Sparta; and the greatest wish of that city, under Lycurgan laws, was the begetting of fine children. Nor did the marriage rite, even, interfere with the public expression for producing a splendid scion. It was regarded as a signal honor for a man to desire union with an admirably adapted female for procreation of the race. The sin of all others in that day was prevention of conception. The crowning blessing was to possess a child. But—they were pagans.

Modern man, in his conceit, sits on a pedestal of self-assumed animal supremacy, and calls all else of creation "the lower orders;" and yet only man and the tomcat or a hungry hog destroys his progeny.

Pagan Rome gave civic rewards for children. Canadian France bestowed wide acres on each child born within her domains. Christian, civilized, intellectual America pays liberal fees to soulless fashionable doctors and murderous midwives to thwart the advent of these "jewels from the skies."

The Biblical woman patiently travailed in pain overnight, but her joy came with the morning in the birth of a child.

In the gladness of her possession she forgot all the pangs of birth. Her cup of happiness brimmed full. In those days divorces were unheard of.

For five hundred and twelve years after Pagan Rome was founded, no divorces were granted, and the first divorcee died in ignominy of all the city.

So many phases of this question press for consideration that space will not allow extensive discussion. I am safe in saying that the chief causes of infidelity, the infection of wives with venereal disease, the neurasthenia and aches of women in general, the widespread divorce evil, the premature emasculation of both sexes, and untold disorders can be traced by the sociological student directly to this growing evil of abortion or prevention of conception. Trace each one named to its source, and it will unerringly lead to one of these sins as its origin. How much, how very much might be said on the subject and it not be exhausted.

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Are there not instances where prevention of conception or induction of abortion are justifiable? Assuredly, yes. But not on so wholesale a scale as prevails.

A woman may be deformed in pelvic bones which would interfere with childbirth: disease of kidneys, heart trouble, sometimes goiter, particular blood diseases, certain nerve disorders, displacements: rarely pernicious vomiting, tuberculosis, etc., are among the reasons why some women should not be allowed to bear. Every such case stands on its own merits, and decision in each must be made with due consideration. Who shall decide? Well, usually, meddlesome neighbors and marplot competitive doctors pass judgment, anyhow, regardless of conditions, the merits of which not having been retailed to their prurient ears.

There are exigencies of health where the bearing of children is not to be tolerated by the family physician; the life of a valuable member of the community may be threatened through such parturition; or permanent ill-health of a useful woman may be ensured through permitting her to undergo a pregnancy which, at most, can result only in the birth of a weakling babe which will likely die about the time its parents' tendrils of heart are entwined most tenderly about its fragile life.

The public needs to be awakened to the necessity of intelligent and scientific consideration of childbearing, and all the phases it presents to the sociologist, the community, the family and the state.

It is outrageous that the state's citizens should be replenished at the expense of those relatively few conscientious, God-fearing, womanly women who, like the females of many of the alleged lower orders, reproduce in such numbers as to sacrifice their own precious lives. The one compensatory feature about such grand altruism is that these splendid women have left the pattern of themselves to bless the world, even though, because of their exhausted vitality, most of these babes of devitalized motherhood have succumbed to death prematurely. Yet out of many the world is blessed in the continuance of a few.

It is only through these child-loving, self-sacrificing ones that the earth is kept peopled in these degenerate days; excepting, of course, the base-born, ignorant and despised "lower classes," who know no better and are not educated up to nursing lapdogs. After two or three generations—what with the prosperity of this bountiful land—these, too, afterward grown in wealth and culture, may acquire the lapdog luxury.

Nature is quite as merciless as she is prolific. She produces the boasted acme of creation—man—quite as indifferently as she does the worm, wasp, spider or kitten. In decimation she is quite as ruthless, too. Man, made in the image and likeness of God, finds no more special providence working in his behalf than that which cares for the sparrow that falleth to the ground. This is exemplified in the wholesale death of human offspring. While one-half of all children born die before the age of five years is reached, we fail to take cognizance of the frightful potential loss by miscarriage.

Not less than seventeen per cent. of all pregnancies are abortive through no known cause.

When the vast number of interferences with pregnancy are reckoned, there seems to be more contingent lives lost than are born into this vale of sin and dilettanteism. Numerous are the causes of miscarriage, even where not interfered with. But the crowning crime of the civilized world is unwillingness to procreate.

My protest is against those who negative the law of their life, and for which cause they were created male and female; who wilfully and pertinaciously deny themselves the elevating and humanizing presence and blessedness of children. And even in those who are forced by circumstance or ignorance, or for want of an obliging doctor to go on to fruition, some do so with such unwillingness of heart that I have sometimes thought the obliquity of mind and soddenness of soul, that characterizes many children, due to this very inhospitable and unwilling parentage.

A child born in hate must needs be hateful; a babe carried in despite necessarily is spiteful; a murderous womb produces a potential murderer. "Let the earth bring forth the living creature after his kind," is the injunction upon Nature, and it is so, physically, morally, psychically.

Why have we come to this condition of affairs? Why do men and women no longer wish to become parents? For divers reasons. First, a child interferes with the selfish pursuits of the begettors. It is expensive. It is unesthetic, and prevents gadding. It is supposed to spoil the figure of the woman who bears it.

The poor cannot afford children, and the rich are content with a lapdog.

Cowardice animates some, but this is specious; for with chloroform no intelligent doctor will permit his parturient woman to suffer. Babies are not fashionable; besides—and this is a fertile reason—it is easy to find a Pharisaic physician who, for a consideration, will rid the gravid womb of its inmate. It is against such Molochs of unrighteousness that I declaim!

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When, for any justifiable cause, it becomes necessary to destroy the fruit of the womb, the medical attendant should have no compunction. He should courageously do his duty, fearless and disregardful of clacking, malicious, scoundrelly colleagues.

But for paltry gain, or to accommodate lecherous, cowardly, physically fit, married or unmarried parents, by ruthless interference—is the gate of hell wide enough for such? Onan's sin in the days of old Israel is less condemnful than the turpitude of such monsters!

The introduction of chloroform is the greatest boon ever given to womankind. The curse "in sorrow shalt thou bring forth children" is now nullified, and the incubus placed on Eve at her expulsion from Eden does not apply to her daughters. Did you ever think that the same curse is upon all animal creation? Speed the day when science shall have applied anesthesia to the relief of all animal motherhood, and this earth be blessed with births free from pangs of labor, or else incubators like those for aiding our domestic hen shall have been invented for the replenishment of the earth, irrespective of species.

My heart goes out in sympathy to the young girl who has been betrayed, and is left alone to bear her weight of shame and woe; who must break to her parents the heaviness of her burden, and knows not how.

We hear so much of the prodigal son, and millions of idle tears have been shed in sympathy with him. But who has pleaded for the prodigal daughter?

I am prone to interject a satire here on the subordination of the female in general. Even the welcomings of a female babe are less cordial than to a male. Why? Do you know that as science advances we more and more come to see the superiority of the female in the economy of nature over the male of all creation?

"The need of France," said Napoleon, "is mothers." Such is about to be the need of America. Such would be the need but for the fruitfulness of teeming foreigners who multiply and replenish this new land of their adoption.

There is coming a time quite speedily when the state shall have to assume charge of and reward the bringing forth of young. Many sociologists of the day already advocate such civic responsibility. The state needs and desires citizens. It should encourage their rearing. As to the method of so doing, it is merely a question of detail.

Instead of offering pensions for the man who has killed the most of his fellows, let the state show its bounty toward the procreation of the finest specimens of humanity; let it pension that splendid woman who has presented the world numerous scions of physical beauty, having mental capabilities. Let the government prevent the union of the degenerate and unfit; and encourage the procreation of the best. Then may obtain the "three score and ten" of the Psalmist. Then will our young men be ruddy of countenance, our maidens as the cypress, and the days spoken of by the prophet come to pass: "There shall be no more thence an infant of days, or an old man that hath fulfilled his days; for the child shall die an hundred years old."

HYPODERMIC INJECTION OF PILOCARPIN.*

By R. W. Perry, M. D.,
SEATTLE, WASH.

Pilocarpin is a diaphoretic, a salvary stimulant, diuretic, and a myotic, and exhibits, on administration of a moderate dose, several interesting phenomena.

In from three to fifteen minutes there occurs a flushing of the face from temporary cardiac stimulation, a commencing profuse diaphoresis from stimulation of the nerve endings in the sudoriparous and sweat glands, and marked salivation from stimulation of the endings of the chorda tympani. This continues from one to two hours. That the diaphoresis and salivation are produced thus is proven by the fact that they may be almost instantaneously arrested at any stage of their activity by the administration of atropin hypodermically. On the tympanic membrane, and also, we are told, on the tympanic mucosa, in thirteen minutes there occurs a distinct redness which lasts forty minutes and then fades away. With the exception of milk and bile all the secretions of the body are increased, while in the latter stages the heart and vasomotor centers are depressed, and blood pressure falls.

On the administration of a larger dose all the above phenomena are increased and their duration prolonged, and there are added other symptoms of a more unpleasant character. From stimulation of the nerve endings in the unstriped muscle of the bladder there is a desire to micturate, and from irritation of the vagus endings and the muscular wall of the stomach there occurs distressing vomiting, which one patient describes as much similar to that which he experienced on first attempting to smoke tobacco. There is also considerable disturbance of vision.

I have seen one patient die, following the administration of three grains of pilocarpin. It was in a patient in the last stages of chronic interstitial nephritis, and was administered as a last resort. The amount of salivation and pulmonary secretion was much in excess of the perspiration, and I could almost liken it to the pouring of water from a town pump. To remove the secretion we placed the patient's head on the floor, as gravity seemed to be the only way to get rid of it, and prevent him drowning in his own secretion. The circulation gradually became weaker, and the patient died in about two hours' time, from circulatory depression and pulmonary edema.

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*Read before the King County Medical Society, Seattle, Wash., July 6, 1903.

Before commencing a course of pilocarpin injections, it is very necessary to ascertain the condition of the patient's various organs. In acute or chronic parenchymatous nephritis, complicated with degenerative changes in the arteries and hypertrophy of the left ventricle, and also in old people or in any disease where there is a tendency to edema or to cardiac depression, pilocarpin is a dangerous drug. It is also contraindicated in pregnancy, for its contractile action on unstriped muscle gives it the action of an ecbolic. Put the patient to bed at about six o'clock in the evening, in a room of even temperature, clothed in flannel and between flannel blankets, supply to bowl to catch the saliva, administer one-half drachm of aromatic spirits of ammonia, then hypodermically one-twelfth of a grain of pilocarpin. It is well to make the initial dose small in order to discover any idiocyncrasy of the patient to the drug, and it may shortly be increased to one-sixth and one-quarter of a grain. In three hours the patient may get up, wipe dry, and on the following day go about his work as usual.

In all cases where an inflammatory exudate is to be absorbed it should be assisted by the internal administration of potassium iodide, and where the cause is syphilitic, mercury should be added.

Pilocarpin has been used and suggested in a great number of ailments, and its present lack of use and unpopularity are due, no doubt, to its disagreeable physiologic action and the unnecessary fear of a lethal result.

As a myotic it is occasionally used in glaucoma, but in this it is inferior to eserin.

In the ascites of liver disease, and in hydrothorax it is useful. A surgeon tells me of one case of hydrothorax in which a full dose of pilocarpin, combined with two days' complete abstinence from fluids, removed completely the exudate. He said that the secretion was so profuse that he dipped with a table-spoon one-half an ounce of fluid from the supraclavicular fossa. The measure here seems to me to be somewhat heroic.

It is in parenchymatous nephritis, acute and chronic, and in puerperal eclampsia that pilocarpin has been much used. It is in these diseases that it is specially indicated, and in these also in which it is particularly contraindicated. The fact that the skin is the complimentary organ to the kidney immediately suggests that its diaphoretic action would remove from the system the toxins which the diseased kidney failed to eliminate, and in these diseases pilocarpin is frequently of use, but the fact also that it kills by circulatory depression and pulmonary edema, and that in the above diseases we have those symptoms in a marked degree, gives us the clue to the drug's frequent failure and present unpopularity, which I think, in these diseases, it certainly deserves.

It is in the more chronic diseases, that have a lymph exudate or inflammatory deposit, that pilocarpin is useful. This is due to its great power of absorption, both as the result of a general sweating process as well as its action on the central nervous nuclei. By means of the repeated hyperemias there ensues a pliability of sclerosed tissue, and a moistening and softening of adhensions that results in their liquifaction and removal by absorption.

Tertiary syphilitic disease of the labyrinth is almost the only disease in which our modern text books give specific instruction for its use. In others it is merely suggested. In this disease there is an effusion into the labyrinth, which is promptly absorbed, with relief from the symptoms. In traumatic cases and in Meniere's disease there is less success, as here there is a new growth of connective tissue in the labyrinth.

In eye diseases pilocarpin finds a large and successful field of usefulness. In those cases of irido-cyclitis, syphilitic, gonorrheal or rheumatic, with iritic adhesions and vitrious opacities the hypodermic use of pilocarpin, used with energy and perseverance, gives a gratifying result. and eyes which have been steadily growing worse show immediate improvement, cloudiness of the humors disappear and the lymph. which holds the iris to the lens. is steadily absorbed and the pupil seen to gain its rotundity.

This is due not only through its great power of absorption, but largely also through its influence as a myotic. It is well known that in cauterizing a corneal ulcer if the anterior chamber is perforated, the ulcer heals with much greater rapidity. That the fluids of the eye are in themselves possessed of great absorptive power is demonstrated in the ease with which the aqueous absorbs the lens, when the lens capsule is ruptured.

Pilocarpin, then, by its action as a myotic, drawing the iris away from the "angle of filtration," opening the spaces of Fontana, and thus lowering intraocular tension, stimulates the secretion of a fresher and purer aqueous which, less saturated with the products of absorption, more readily acts on the organized lymph to be removed.

There is no "royal road" to success with pilocarpin and in those cases it requires faith and perseverance and a determination to fight every inch of the ground. Make an accurate word and pen picture of the amount of lymph and irregularity of the iris. Give the drug hypodermically for a month, at the end of which time, if the condition has shown any improvement, you are encouraged to continue. If you improve a patient* with marked keratitis punctata, hazy vitreous and iritic adhesions, from inability to even "guess the time by an ordinary watch" to 20-60 of normal vision at the end of a couple of years, by repeated monthly treatments, you have only done what pilocarpin is capable of, if used with perseverance.

Burnham reports a case of chronic articular rheumatism in a patient so crippled that he walked with two sticks. The eyes showed vitreous opacities, iritic adhesions and k. p. vision No. 20, Snellen's type at six inches. His vision improved to twenty-fiftieths, and in an analogous manner his general condition likewise improved till he could run up and down a ladder with the greatest ease and quickness.

In sympathetic ophthalmia pilocarpin has also been used with considerable success.

In a case of mine, of sympathetic neuro-retinitis the patient's vision improved from 6-36ths to 6-6ths, after removal of the offending eye and the energetic use of pilocarpin.

I do not believe that eye and ear diseases limit the field of pilocarpin's usefulness, but that it may be used with benefit in tertiary syphilis, with gumma in the brain or organs, and in chronic articular rheumatism.

In the case of Burnham's, above quoted, the general condition improved with the local use. Where, in syphilitic irido-cyclitis, the exudate is seen to disappear under our eyes, I cannot but think that syphilitic exudate of other parts of the body may be removed in like manner. I also believe that many chronic cases now sent to the various baths might be successfully treated at home by this more powerful therapeutic agent.

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*Case of Burnham, before the British Medical Association, 1897.

THE LUMBRICOID OF THE TROPICS.*

By J. S. Stott, M. D.,
PORTLAND, ORE.

It may seem like presumption for one who has not been nearer the equator than the border line between the United States and Mexico to attempt to write an article on this subject. But as I was urged to tell what little I know of this family of Helminthians I shall endeavor very briefly to do so. Some three or four years ago I was at the Walla Walla hospital, which was under the supervision of Dr. Cropp. While there my attention was called to a very peculiar specimen of lumbricoid worm which had just been passed by a young man who had recently returned from Manila. We were not able at that time to classify it, as it differed from the ordinary lumbricoid in that, instead of resembling the earthworm in size and shape, which is about as large as a goose quill, it was larger than that worm in the middle and tapered more abruptly to a point at either extremity, was extremely tough and almost as lively as a garter snake, the ordinary lumbricoid not being very active. Its length was about eight inches and the color was a darker brown than that of the ordinary worm. Dr. Cropp. who has had a large practical experience, said he had never seen anything like it before the boys returned from the Philippines, but since that time had seen several cases. This patient, a young man of 28 or 30, was pretty sick, having considerable fever, and was quite restless, giving evidence that he had not yet disposed of all of these unwelcome guests.

The only other specimen coming under my observation was one that occurred this spring in my own practice and was passed by an Italian woman who had been here from Italy about ten months. The size, shape, color, etc., did not differ materially from the one before described. The patient passed the worm shortly after confinement, and I could not determine how much of the symptoms, if any, were due to the parasite.

I have looked in vain for any satisfactory literature on the subject, and at present could do no more than describe the ordinary lumbricoid, which I consider unnecessary, as it is a subject with which you are all familiar. I procured the eight lectures in a course on Tropical Diseases, by Capt. Chas. F. Kieffer, assistant surgeon U. S. Army, published in the *Philadelphia Medical Journal,* but he seems to have overlooked this subject. I also consulted Dr. Herbert Cardwell, who has been some time in the tropics. He said he had seen a number of cases, but further than that it was a species of the lumbricoid group, its size and vigor being influenced by the luxuriant tropical conditions, he knew nothing special.

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*Read before the Multnomah County Medical Society, Portland, Ore., June 8, 1903.

The treatment there was to give rather heroic doses of santonin, which was an efficient remedial measure.

THE VALUE OF THE BLOOD EXAMINATION.*

By Robert M. Stith, M. D.,
SEATTLE, WASH.

As to the importance of the examination of the blood, there is, today, little question. But in interpreting the results of the laboratory, one should always bear in mind that only in rare instances is the blood examination pathognomonic. *The findings must always be read in connection with the clinical symptoms present.* Many men in the past expected, and I regret to say a few today expect, the report of the blood condition to be an exhaustive monograph dealing with the etiology, symptomatology, diagnosis, prognosis and possible pathological findings in a given case.

It shall be my endeavor to indicate briefly the various conditions in which the blood examination is of distinct value, and avoid, so far as possible, technical terms, descriptions of methods and blood pictures.

The means at our disposal for investigating the blood condition are: (1) The estimation of the hemoglobin and the counting of the corpuscles, red and white; (2) the examination of the fresh and stained specimens for the percentage counting of the various forms of the white cells, for the detection of distorted, nucleated or stippled forms of the red cells, and for the detection of parasites; (3) the taking of the coagulation time of the blood; (4) the agglutinative reactions; (5) and the taking of cultures from the blood for various bacteria.

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*Read before the King County Medical Society, Seattle, Wash., June 15, 1903.

The examination of the blood in malaria, relapsing fever and filariasis is of specific value, but these conditions are unknown or rare in this climate.

In the anemias and leukemias the examination is of paramount importance, as by this means alone is it possible to differentiate primary pernicious anemia and chlorosis from the secondary anemias and from each other; to distinguish lymphatic leukemia and Hodgkin's disease (pseudo-leukemia); spleno-medullary leukemia and splenic anemia from enlargement of the spleen due to chronic malaria or malignant growths.

Most of the infectious diseases show a marked increase in the number of leucocytes, a leucocytosis it is called. In this connection it is interesting to remember that acute articular rheumatism resembles the infections and gives a well-marked leucocytosis. A few of the infections do not show a leucocytosis, these being typhoid fever, measles, malaria, influenza and uncomplicated tuberculosis. A leucocytosis occurring in typhoid fever would indicate some complication; in tuberculosis, secondary infection.

In the onset and acute stage of pneumonia the leucocytosis is well marked and continued until the crisis, when it falls. In the onset and acute stage, without a leucocytosis, the prognosis is very unfavorable. Should the temperature curve suggest the crisis, the leucocyte count still being high, we have to do with a pseudo-crisis.

Surgical conditions due to the presence of pus and septic processes are constantly characterized by an increase, either absolute or relative, of the polymorphonuclear neutrophilic leucocyte, the leucocytosis being well marked unless the collection of pus is well walled off, thus preventing absorption and the consequent leucocytic reaction. For leucocytosis is a measure of resistance of the vital processes and is proportionate to the intensity of infection and the power of resistance of the patient.

Appendicitis is associated with an increase of the leucocytes. Bloodgood says: "When we have a leucocytosis of 18,000 or over in the *first forty-eight hours* of an attack we will find an advanced pathological lesion of the appendix."

As a point in the differential diagnosis from typhoid fever, the leucocytosis is of value, as you remember uncomplicated typhoid fever shows no increase; usually a decrease.

Gall stones and renal colic, if uncomplicated, are also differentiated from appendicitis by an absence of leucocytosis.

In intestinal obstruction the leucocytes are pretty constantly increased.

The subject of the occurrence of leucocytosis in typhoid perforation is interesting, almost all agreeing that it does occur early, but is usually of short duration, hence necessitating the frequent counting of the white cells, at hourly or half-hourly intervals. It is therefore not of much value except in the larger hospitals where work and young residents stand in about the same relation as David Harum says fleas bear to a dog; that is, "They keep him from broodin' on being a dog."

In certain diseases due to parasites, especially intestinal parasites, in addition to the secondary anemia present, there is a marked increase in the percentage of the eosinophilic leucocytes. These cells occur in normal blood in from 1-4 per cent. In these conditions the percentage may be as high as 30-40. In trichinosis, where they were first noted, they constituted 68 per cent. of all forms.

In lead poisoning certain granular degenerations of the red cells occur, having an affinity for basic anilin stains, giving the red cells a stippled appearance. These granules appear with great constancy, even before the blue line on the gums.

The coagulation time of the blood is normally 1-4 minutes. In certain conditions associated with jaundice, hemophilia, and purpura it may require twenty minutes to coagulate. In these cases operative procedures would likely be followed by dangerous capillary oozing.

Should the hemoglobin be below 30-40 per cent., no elective operation should be undertaken, as shock is much more likely to occur. The estimation of the hemoglobin prior to operation should be as much a matter of routine as examination of the urine or heart.

The Williamson test for diabetic blood, which depends on the property of diabetic blood to decolorize a solution of methylene blue, is of value in cases where sugar has temporarily disappeared from the urine. This test may also prove of value in distinguishing those forms of diabetes in which the blood sugar is not increased.

As to the practical agglutination reactions, that of typhoid, commonly called the Widal, is well known, usually appearing early and is pathognomonic, but in some cases its appearance is late, even is delayed until the relapse. A similar reaction occurs in Malta fever, and the paracolon infections. Also in acute epidemic dysentery. The recent discovery by Duval and Bassett that the summer diarrhea of children is due to the same bacillus of Shiga and Flexner is interesting, as it was by means of this reaction that the microorganism was identified.

By the systematic estimation of the hemoglobin and counting of the red cells in the anemias it is possible to secure an accurate idea of the benefit of the treatment.

As to blood cultures, micro-organisms have been repeatedly demonstrated in the blood during life, e. g., pneumococcus, diplococcus intracellularis, typhoid bacillus, etc. In 585 cases of typhoid fever the bacillus was demonstrated in the blood in over 80 per cent., usually before the fifth day, i. e., before the Widal reaction was positive.

No attempt has been made to mention all the conditions in which the blood examination is of value.

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NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D., Editor in Chief.
JAMES B. EAGLESON, M. D. Managing Editor.

Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. OCTOBER, 1903. NO. 10

THE OREGON ASSOCIATION MEETING AT PORTLAND.

The Oregon State Medical Association added another star to her crown of success when the work of the thirtieth annual meeting was finished, September 30. The two great objects of the calling together of medical men in convention, namely, social intercourse and scientific advancement, were both splendidly cared for by the medical profession of Oregon. The program for the scientific work was carefully arranged and many of the papers showed careful thought and work. At all the sessions the hall was well filled with attentive listeners. The suggestion in a recent number of *"The Medical Sentinel,"* as to the impropriety of a counter meeting on the outside of the door, seemed to have the desired effect and there was a noticeable improvement in that regard over former meetings of the same society.

Most state associations devote more time to surgical subjects but it looks as though our Oregon brethren are keeping away from the general drift and present a strong leaning toward nervous and mental diseases. This was shown by the fact that both the outgoing and incoming presidents are specialists in this line and the most prominent part of the program was given over to a symposium on that subject. This is highly proper, too, for a general meeting such as that of our state societies, for to the general practitioner these subjects are of almost, if not equal, importance to that of surgery and have certainly in the past few years not had anything like equal representation in the programs of our state associations.

On the first evening a novel feature was the reception of the visitors at the various hospitals in the city. This gave a splendid opportunity for mutual acquaintance and at the same time gave the visiting physicians a good idea of the excellent hospital equipment of Portland.

The physicians of the gentler sex were very much in evidence at all the sessions and this was very wisely taken into account by the entertainment committee. The President's wife invited the lady doctors and wives of the visiting physicians to a banquet at the Portland Hotel. This was a very enjoyable feature to those who took part and is one that should be given more attention generally by the entertainment committees of our state associations. The success of the medical meeting is really largely measured by its social features and, as many of the visiting physicians bring their wives with them, when we give a banquet including men only we are entertaining only about three-fourths of our guests.

The last feature of the program was a banquet in the parlors of the Portland Hotel, tendered the visiting physicians by the City and County Society of Portland. It was certainly a rare treat to have the privilege of attending this banquet which was one of the most elaborate, beautiful and successful ever given in the Northwest. The table was set in the shape of an H, adorned with candelabra and literally banked with flowers, and there were several vases filled with flags of all nations. Add to this a splendid menu, the indomnitable Harry Lane as toastmaster, and a table surrounded with "Portland's jolly good fellows" and we have the finest evening's entertainment that can be offered. All who were compelled to take the 11:45 train will undoubtedly never let it occur again and another year will arrange for one more day's stay in Portland.

The State of Washington was well represented. Among those in attendants were Drs. Armstrong and Libby, of Spokane; Chalmers, of Vancouver; Overmeyer, of Aberdeen; Swearingen, Yocum, and Quevli, of Tacoma; and Coe, Eagleson, Sharples and Willis, of Seattle. Idaho was represented by Dr. Morris, of Lewiston. California had at least one representative. In the past it has been the custom of this organization to have at least one man from abroad who is the center of attraction both in the scientific and social features. This year, however, they definitely proved that an interesting, instructive and highly successful program can be arranged with local talent.

Portland hospitality was shown on every hand. Any physician outside the city was likely to receive from one to six invitations to luncheon every day.

Our old standbys, H. W. Coe, K. A. J. McKenzie and Andrew Smith, with some of the newer and no less formidable lights, such as Drs. Hutchinson and Coffey, gave almost their entire time to the various meetings of the society. This is to be commended in such busy men, especially when it is known how hard it is to escape the regular duties when in one's own city. Such meetings as that of the Oregon State Medical Association elevate the profesion and are of inestimable benefit to those who take the time and trouble to attend. We gain some new ideas by careful attendance at these meetings but this, in reality, is a small part of the benefit received compared with making new acquaintances and renewing those of yore, thus making friends, the importance of which no one can estimate too highly.

Everything moved along very smoothly at this, the first meeting under the new constitution. Politics, of course, were in evidence, but they were simply an undercurrent, not even rippling the surface of this highly successful meeting of medical men.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The annual meeting of this association will be held in Victoria Oct. 30 and 31. This will be the last of the large society meetings to be held this autumn, in the Northwest. We doubt not this will rank with those recently held on this side of the border, in respect to an interesting program and good fellowship.

We ought to cultivate closer relations with our medical brethren in British Columbia. Washington being so centrally situated with reference to the territory north, east and south, its medical body is in a specially favored position to form friendships with the physicians in these sections. No occasions are so suitable for this purpose as these large gatherings of medical representatives. It is to be hoped a good sized delegation will attend this meeting from the Sound cities.

FORMALDEHYDE AND ITS USE IN MILK.

When the universal power of formaldehyde as a preservative agent was discouraged, a few years ago, it was greeted as a boon to milk consumers and at once put to general use, being held as harmless in the small quantity needed to prevent decomposition. Such was the confidence placed in it that milk dealers had a legend attached to their wagons, to the effect that their milk was preserved by formaldehyde, therefore being held in higher estimation.

When its harmful effects were realized its use in milk was universally prohibited. Yet, in consequence of its apparent commercial advantage in the sale of milk, it has continued to be used surreptitiously, being the active ingredient of different lauded preservatives.

The exact nature of its injurious effects on the human system, taken in sufficiently small doses to prevent decomposition in food, has not been determined. In any case, all will admit that it has no place in the dietary of babies who are the chief consumers, in quantity, of the milk thus treated.

The recent agitation of this subject in Seattle, and prosecution of milk dealers for using formaldehyde, has disclosed to the public the fact that it has been generally conceded that no test would reveal its presence in milk which had soured or that was much over twenty-four hours old.

This contention has now been disproved by the discovery of a test by Mr. Lebrecht Tanzer, chemist of the Stewart and Holmes Drug Co., which is certainly of the greatest chemical value. By its use formaldehyde can be recognized, under any conditions of milk or other fluid containing it, in minute dilutions. This statement is capable of the simplest and easiest demonstration. Mr. Tanzer has proven its unfailing reliability before local chemists and physicians, always recognizing the solutions containing the formaldehyde, in whatever form they have been presented to him. He states it is so delicate that it will detect a drop of formaldehyde in a barrel of water. This is a dilution of about 1 to 2,500,000. On first thought this statement seems incredible. But the test has been exhibited in dilutions so small that we do not question the accuracy of this.

We are not prepared to give the formula of the test at present but it will be disclosed at a later date.

This Tanzer test will surely eliminate the use of formaldehyde in milk, since its presence can be so readily detected.

We await the demonstration of the injurious and toxic effects of formaldehyde, on the part of the physiologists, in order to determine whether we should avoid the use of the numerous preparations which are advertised to contain certain amounts of formaldehyde, some of which are recommended for internal medication.

THE DAILY MEDICAL JOURNAL.

A journal with this title has this month been offered to the medical profession, its home being in New York.

The prospectus states that it will be a six-page daily, each page made up of four columns. It will contain the medical and surgical news of the world, presented to the subscribers day by day. It states that "Never again will a physician have to wait for weeks for the report of an event; we will present it to him on the same or following day whereon it occurs." It is proposed to issue 100,000 copies daily.

We cannot but admire the enterprise that inspires such a venture and the confidence displayed in the anticipated co-operation of the medical profession. At the same time we cannot recognize the demand for such a publication. No busy physician cares to devote his time to the daily perusal of a paper for medical news. He can find more than enough of this in the secular press. The first and most important function for the medical journal is to impart scientific information and instruction to its readers. The field is of sufficient size to employ all of its resources. It is difficult to imagine any mere item of medical news, of so great importance that one must digest it at the breakfast table.

We recall the attempt, many years ago, to publish a daily religious paper which, after a short and uncertain existence was extended to a weekly, and this with a paper that could command a much larger circulation than a medical.

The professional man, engrossed in his busy routine, will obtain all the necessary technical, mental pabulum from the perusal of the superabundant supply of weekly and monthly publications. He will pray to spare his mental digestion the infliction of overfeeding.

ERRATA.

We wish to call attention to the following error in our September issue. The degree, F. C. R. S. E., attached to the name of Dr. Ernest A. Hall, author of Treatment of Pelvic Disease in the Female Insane, should have read, L. R. C. P.—EDITOR.

TO OUR READERS.

We publish no advertising inserts or commercial notices of any kind in our reading pages. We select our advertisers with much care and accept only those that we can recommend to you as reliable firms.

Drop a postal to them for literature and samples, not forgetting to mention that you saw their "advs" in Northwest Medicine.

MANAGING EDITOR.

REPORTS OF SOCIETY MEETINGS.

OREGON STATE MEDICAL ASSOCIATION.

The thirtieth annual meeting of this association was held at Elks' hall, Marquam building, Portland, September 29 and 30, 1903.

TUESDAY MORNING SESSION.

The meeting was opened by the president, Dr. Henry Waldo Coe, of Portland, who stated that he would dispense with the usual formal address, and then spoke briefly on the new constitution which the society adopted at the last annual session, explaining its workings, and hoped that the society would from this time forward develop much more rapidly than it had in the past.

He then introduced the Hon. George H. Williams, mayor of the city of Portland, who gave an eloquent address of welcome to the members of the society, in the course of which he paid a warm tribute to the medical profession in regard to the newer discoveries in medicine and surgery, and complimented it on being the only profession that aimed to avert the diseases, the treatment of which gave medical men employment.

The report of the board of council was read by its chairman, Dr. Calvin S. White, of Gervais. It was adopted by the society.

An invitation from the British Columbia Medical Society to attend the annual meeting at Victoria was read.

A letter from Dr. W. W. Keen, in regard to raising a memorial fund in honor of the late Major H. W. Reed, U. S. Army, was read. In discussing this letter Dr. F. H. Cauthorn made an eloquent appeal for the memory of the medical men who have laid down their lives in their endeavor to prevent contagious diseases from gaining headway in this country. He moved that a committee of three be appointed to take up the subject for the society. Carried. The president appointed Drs. Cauthorn, Fulton and Wheeler to act on this committee.

Dr. Joseph S. Courtney, of Dayton, then read his paper on "Asteomyelitis, with Report of an Unusual Case." This paper was ably discussed by Drs. K. A. J. Mackenzie, G. F. Wilson, A. C. Smith, J. R. Yocum, R. C. Coffey and G. E. Houck.

Dr. F. W. Van Dyke, of Grants Pass, then read a paper entitled "The Higher Education a Cause of the Physical Decay of Women," which was discussed by Drs. Mae Cardwell, J. S. Fulton and Woods Hutchinson.

The meeting adjourned to 1:30 P. M.

TUESDAY AFTERNOON SESSION.

The meeting was called to order by the president. Dr. Joseph Sternberg, of Portland, read a paper entitled "Technique in General Anesthesia."

This was followed by two papers on

CLIMATOLOGY.

The first was by Dr. Franklin Cauthorn, of Portland on "Some Observations on the Arid Region;" the second by Dr. Edward A. Pierce, of Salem, on "Tuberculosis."

An interesting group of papers followed, consisting of the

X-RAY SYMPOSIUM.

Dr. Richard Nunn, of Portland, in a paper, entitled, "What is the X-Ray?" presented a scientific account of this mysterious therapeutic agent. "Technical Management," By Dr. George E. Houck, of Roseburg, was next read, the series being closed with "Diagnosis of Fractures," by Dr. George F. Wilson, of Portland. An interesting discussion was held on the three papers.

Under **THERAPEUTICS,** two papers were read, than on "Cancer" by Dr. R. C. Coffey, of Portland, while Dr. L. H. Hamilton, of Portland, presented "Skin and Glands."

WEDNESDAY.

Next followed a

SYMPOSIUM OF NERVOUS DISEASES.

Dr. Walter T. Williamson, of Salem, Ore., presented a paper upon "The Paranoiac," leading the patients from early childhood through to the last stages of the disease, showing how it ultimately terminates in gradual and complete unbalancing of the mental conditions; the patients being incapable of practically all sane actions. The points which he especially laid stress upon were the early appearance, the peculiarities and the vagaries of childhood, pointing out that such children are often supposed to be possessed of the qualifications known as genius.

The subject of "The Neurasthenic" was by Dr. J. Allen Gilbert, who delivered a short but very interesting talk, dealing with certain peculiar symptoms of the disease, which he portrayed as the most common, on which the writer can hardly agree with him. One special point that he dealt upon was the alternation of constipation and diarrhea, which he said was a constant symptom of neurasthenia.

Dr. James P. Tamiesie, of Hillsboro, read a short paper describing the peculiarities of "The Pervert," but he did not confine himself to the pervert of Kraft-Ebing. He seems to think that each man who has any special peculiarity should be classed as a pervert.

Dr. Woods Hutchinson, of Portland, made a talk upon the subject of "Tubercular Diseases and Their Influence Upon Nervous and Mental Conditions," ascribing the tubercular influence to certain toxines that are formed by this disease, carried by the blood, and having their influence upon the nervous centers.

The "Treatment of These Conditions" was taken up by Dr. John S. Klober, of Green River Hot Springs, Wash., who laid most stress upon the conditions for which a sanitorium was most valuable, but especially did he call attention to the part that the government at large should take in the restriction of the reproduction and feeding of the paranoiac.

The last group of papers constituted the

KIDNEY SYMPOSIUM.

Dr. Albert T. Mackay, of Portland, described "Modern Methods of Diagnosing Kidney Disease," spending his time almost entirely upon the subject of segregation of the urine from each ureter, displaying and speaking of the modern instruments of Harris and Kelly, and also exhibiting a new instrument, through the canal of which a small rubber veil was fastened on wire springs, which was compressed when drawn into the instrument, but after the latter was inserted into the bladder it could be pushed from the instrument into the organ, at which time it would take an oval shape about three inches long and two inches wide, and theoretically would be completely closed down upon the muscular fibres of the bladder and so would produce two complete compartments. Theoretically it gives the urine from either kidney without contamination.

Dr. Charles J. Smith, of Pendleton, Ore., read a paper upon the "Dietetic Treatment of Kidney Diseases," recommending the use of milk and non-albuminous articles of food. He also digressed into the matter of drugs and laid special attention upon the use of jaborandi.

The papers of Drs. James F. Bell, of Portland and James B. Eagleson, of Seattle, were not read, neither those of William H. Byrd and William Jones.

Dr. Woods Hutchinson delivered an address upon the "Causation and Pathology of Bright's Disease," laying particular stress upon the fact that he believes this condition to be not of local pathology but there is some disease involving the entire system, whatever that condition might be, probably toxemic, that is the cause of the local manifestations in the kidneys. He also made the assertion that he believed the benefit derived from the operation of Edebohls was not on account of any local improvement of the pathological condition but because it permitted something, whatever that something might be, to be liberated in the general system, free from that local irritation.

Dr. Park Weed Willis, of Seattle, read a paper on the subject of "Anuria," rescribing those obstructive and oppressive conditions that would produce complete lack of secretion.

The "Indications of Nephrectomy" were ably handled by Dr. K. A. J. Mackenzie, of Portland, taking up tuberculosis, calculus diseases, obstructions and new growths, and also suppurative kidney tissues.

The following officers were elected for the year 1903-04:

Williamson, W. T., President	Salem, Oregon
Tape, G. W., First Vice-President	Hot Lake, Oregon
Ferguson, E. E., Second Vice-President	The Dalles, Oregon
McGavin, Jessie, Treasurer	Portland, Oregon
Hamilton, L. H., Secretary	Portland, Oregon

COUNCILLORS.

Josephi, S. E.	Portland, Ore., 1 year
Amos, W. F.	Portland, Ore., 3 years

May, W. J.	Baker City, Ore.,	2 years
Fulton, J. S.	Astoria, Ore.,	2 years
Wilson, Geo. F.	Portland, Ore.,	1 year
Williamson, W. T.	Salem, Ore.,	4 years
House, Wm.	Pendleton, Ore.,	3 years
White, C. S.	Gervais, Ore.,	1 year
Coffey, R. C.	Portland, Ore.,	1 year
Limklater, S. T.	Hillsboro, Ore.,	4 years

DELEGATE TO THE AMERICAN MEDICAL ASSOCIATION.

Smith, J. C. .... Pendleton, Ore.

ALTERNATE TO THE AMERICAN MEDICAL ASSOCIATION.

Mackenzie, K. A. J. .... Portland, Ore.

THE IDAHO STATE MEDICAL SOCIETY.

The eleventh annual meeting of this society was held at Boise, Idaho, October 9 and 10, 1903.

The following extensive and interesting program was presented:

ORDER OF BUSINESS.

Calling the Society to Order by the President .... *Dr. Geo. Collister, Boise*

Report of Chairman Committee on Arrangements .... *Dr. C. L. Sweet, Boise*

Address of Welcome .... *Hon. J. H. Hawley, Mayor of Boise*

Special Reports from Governing Board.

Reports of Special Committees.

President's Address .... *Dr. Geo. Collister, Boise*

Puerperal Infections; Its Origin, Prophylaxis and Treatment .... *Dr. H. A. Castle, Pocatello*

Discussion opened by Dr. J. L. Conant, Jr., Genesee

The Surgical Treatment of Retro-Displacements of the Uterus .... *Dr. R. C. Coffey, Portland*

Discussion opened by Dr. L. P. McCalla, Boise.

Adenoids .... *Dr. Adolph Blitz, Boise*

Discusion opened by Dr. M. A. Hughes, Salt Lake City.

What Can be Done to Cure Cancer?. . *Dr. Emory Lanphear, St. Louis*

Discussion opened by Dr. A. C. Smith, Portland.

Some of the More Common Symptoms of Spinal Cord Lesions .... *Dr. Henry Waldo Coe, Portland*

Discussion opened by Dr. J. W. Givens, Blackfoot.

The Treatment of Summer Complaint in Children .... *Dr. B. L. Steeves, Weiser*

Discussion opened by Dr. L. C. Bowers, Boise.

Diseases of Bone, with Magic Lantern Demonstration of Pathology .... *Dr. J. C. Bloodgood, Baltimore*

Senile Conditions .... *Dr. J. K. Dubois, Boise*

Discussion opened by Dr. W. F. Smith, Mountain Home.

Gastric Ulcer .... *Dr. E. F. Root, Salt Lake City*

Surgery of the Stomach .... *Dr. C. P. Thomas, Spokane*

Discussion opened by Dr. C. L. Gritman, Moscow.

THERAPEUTIC APPLICATION OF THE CAUTERY....*Dr. R. L. Nourse, Hailey*
Discussion opened by Dr. J. M. Taylor, Boise.
SYMPATHECTOMY....................*Dr. H. D. Niles, Salt Lake City*
Discussion opened by Dr. K. A. J. Mackenzie, Portland.
PHYSIOLOGICAL FORCE......................*Dr. I. L. Magee, Wallace*
SOME OBSCURE LESIONS OF THE ABDOMINAL VISCERA............
..............................Dr. W. H. Ewin, Union, Ore.
Discussion opened by Dr. W. D. Springer, Boise.
TECHNIC OF AN ABDOMINAL SECTION IN COUNTRY PRACTICE—A DEMONSTRATION.............*Dr. Emeroy Lanphear, St. Louis*
INFANT FEEDING..........................*Dr. Geo. Collister, Boise*
Discussion opened by Dr. O. B. Steely, Pocatello.
SOME COMMON DISEASES OF THE EYE..*Dr. M. A. Hughes, Salt Lake City*
REPORT OF AN INTERESTING PYLORECTOMY; ALSO A NEPHRECTOMY AND A PROSTATECTOMY..........*Dr. A. C. Behle, Salt Lake City*
Discussion opened by Dr. N. G. Blalock, Walla Walla.
TREATMENT AND PROGNOSIS OF TUBERCULAR PHTHISIS IN IDAHO
........................*Dr. M. M. Harshbarger, St. Anthony*
Discussion opened by Dr. C. L. Sweet, Boise.
A PRACTICAL VIEW OF THE URIC ACID DIATHESIS..............
........................*By Dr. W. T. Phy, Hot Lake, Oregon*
Discussion opened by Dr. J. R. Numbers, Weiser.
ROMANCE OF MEDICINE...........*Dr. J. C. Sullivan, American Falls*
AN ILLUSTRATED ADDRESS ON TUMORS OF THE BREAST..........
..............................*Dr. J. C. Bloodgood, Baltimore*
INSTALLATION OF OFFICERS.
ADJOURNMENT.

KING COUNTY MEDICAL SOCIETY.

President, J. P. SWEENEY, M. D.; Secretary, CARL HOFFMAN, M. D.

The regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of September 21, 1903, President Sweeney being in the chair. Twenty-eight members and visitors were present.

Dr. Stillson presented a patient with LUPUS VERRUCOSUS, whom he had exhibited several months ago, showing photographs of the former condition and comparing that with the present. He described the X-ray treatment that had been used and noted the improvement.

The doctor also commented on a case of bulbar paralysis, whom he had exhibited before the society some months ago, who later died in bed, supposedly being asphyxiated by swallowing his saliva.

Dr. Lyons introduced the subject of the society securing quarters for its meetings and a medical library in the new Carnegie Library. As one of the trustees, he had suggested to the board that a certain room, 30 by 35 feet, with two ante-rooms, be assigned for this purpose. He spoke of the benefit thus to accrue to the society and the possibility of accomplishing this end. He desired an expression of opinion as to the wishes of the society in the matter and to know what efforts would be made to obtain what was desired from the board of trustees.

The question was discussed by Drs. Read, Eagleson, Smith, Willis and De Beck, all of whom agreed that the opportunity must not be lost of thus advancing the interests of the society. Comments were made on the advantages of medical libraries and the great necessity of one in Seattle. In a general way the prospects and expectations in this line were considered.

On motion of Dr. Smith, the president was instructed to appoint a committee of seven, who should confer with Dr. Lyons and the other library trustees in an endeavor to secure definite accommodations in the new library and that they should be empowered to act in the matter for the society. The president appointed Drs. Heg, Smith, Willis, Eagleson, De Beck, Read and Hastings.

Dr. Eagleson addressed the society on the possibility of securing for Seattle the meeting of the American Medical Association in 1905. He stated that hotel accommodations would be abundant at that time, mentioned the various attractions of the Northwest for that summer and thought that, with the endorsement of the state societies of Oregon, Idaho, Montana and California, we might entertain a probability of securing the meeting.

Discussion followed of a favorable nature, but it was not considered wise for the society to commit itself at this time. On motion of Dr. Smith it was voted that all members who attended the coming session of the Oregon Association at Portland should constitute a committee to present the matter to it and secure its endorsement and support, in case it should be decided to extend the invitation for a Seattle meeting; also that this committee should report on all phases of the question at the next meeting of this society.

SNOHOMISH COUNTY MEDICAL SOCIETY.

President, W. C. Cox, M. D.; Secretary, C. A. Betts, M. D.

The regular monthly meeting of the Snohomish County Medical Society occurred on Wednesday, Oct. 7, 1903, in Everett, Wash., at the office of the president, Dr. W. C. Cox. Regular routine order of business was pursued. The history of an interesting and unusual case of "Post-Typhoid Thrombosis of the Femoral Vein" was presented by Dr. F. R. Hedges.

Dr. Betts presented a paper upon "Observations During a Recent Post-Graduate Visit to New York and Chicago."

Meeting adjourned to meet in the same place one month hence.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

The regular monthly meeting of the Whatcom Medical Society was held in Odd Fellows' Hall on Monday, Sept. 14, 1903, President Holt being in the chair.

The minutes of the last meeting were read and approved. Reports were received from Drs. Goodheart and Van Kirk as members of the committee appointed to collect information regarding better hospital facilities. The society was favored by a short address from Bishop

Keator, who explained the attitude of the present management of St. Luke's Hospital and expressed his desire to transfer the same to a local board of directors. Discussion followed.

The paper of the evening was read by Dr. S. H. Johnson, on TYPHOID FEVER. The doctor presented the subject in an able and exhaustive manner. Owing to the lateness of the hour but a short discussion ensued.

The meeting adjourned to meet the second Monday in October.

CHEHALIS COUNTY MEDICAL SOCIETY.

President, D. A. SCHUMAKER, M. D.; Secretary, J. W. SCAMELL, M. D.

The regular monthly meeting of the Chehalis County Medical Society was held at Aberdeen, Wash., October 6, 1903. The subject of discussion was a county fee bill, which was duly adopted. Owing to the time thus occupied, no paper was read.

The society is prosperous. Its membership includes sixteen of the twenty physicians practicing in the county.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE.

Edited by
C. W. SHARPLES, M. D. H. M. READ, M. D.,
Seattle. Seattle.

CHRONIC CYANOSIS. (By William Osler, M. D., American Journal of Medical Sciences, August, 1903.)

This is a new disease that has been reported and classified by Dr. William Osler, the chief symptoms of which have been weakness, prostration, constipation, headache, and vertigo, and in one case, nausea and vomiting.

The analysis of the symptoms that he gives is as follows: The cyanosis, which usually first attracts the attention, is most marked about the face and the hands, aggravated by cold weather and bronchial cartarrh. It varies in intensity, in some cases, almost from day to day. Any respiratory distress increases the degree of cyanosis, but the cyanosis itself does not seem to be responsible for the respiratory distress. On the skin itself are often seen many fine, dilated venules.

An examination of the blood shows an increase of the viscidity. It is usually dark and sticky. Polycythemia is constant and the special feature of the disease. Maximum blood count was 12,000,000 per cmm. Measurements have not been made of the red blood corpuscles. The percentage of hemoglobin has been high. In eight of the cases the leucocyte count ranged from 4,000 to 20,000, being as a rule, though, below 10,000. In seven out of the nine cases the spleen was enlarged.

In the urine there was a trace of albumin in seven cases with hyaline and sometimes granular casts. In a number of the cases from prolonged cyanosis the skin was pigmented. The patient complained of headache, weakness, and prostration, pain in the back and abdomen, nausea, vomiting, coughing and shortness of breath. The pulse was of high tension and the vessels were sclerotic. There was mental and physical torpor and a number of these symptoms are such as are found in mountain climbers. There seems to be no satisfactory explanation of the polycythemia.

He calls attention to the fact that in order to complete a knowledge of these cases a study of cyanosis and multiplication of the red blood cells, associated with heart disease and emphysema, should be made and also into the relation of splenomegaly to the cyanosis and polyglobulism. SHARPLES.

CARDIOPTOSIS. (By Robert Abrams, M. D., Medical News, August 22, 1903.)

The unusual condition of cardioptosis is rarely mentioned in literature. The cases reported are those which have no anomaly in the heart and no organic murmur. He classifies the cases etiologically. First is voluntary cardioptosis; second is cardioptosis associated with ptoses of the abdominal viscera; third, cardioptosis of accommodation; and, fourth, primary essential cardioptosis with no cause excepting impaired tone of the large blood vessels.

Next, size of the heart. Aneurisms and other new growths and adhesion of pleura or pericardium may be other causative factors.

There are two sets of symptoms, subjective and objective. The subjective are not characteristic. There may be feeling of weight or pressure, referred to the lower sternal region or epigastrium associated with dyspnea, intensified by exertion.

He thinks that most of the murmurs occurring in this condition are accidental or dependent upon the position of the heart. The essential signs of cardioptosis are brought out by skiascopy. The long axis of the heart appears practically parallel to the surface of the diaphragm. The boundaries are poorly defined. The highest point is represented by the left auricle, which is at the lower portion of the sternal insertion of the second rib.

In cardioptosis there is little or no respiratory dislocation. Treatment is valueless. SHARPLES.

WIDAL REACTION IN A CASE OF LIVER ABSCESS. (By Megele, Muenchener Méd. Wochenschr, Nov. 14, 1903, and Am. Med., August 22, 1903.)

Megele reports a case of abscess of the liver, which gave a Widal during a part of the course of the disease. Bacteriologic and postmortem examinations excluded typhoid. On the nineteenth day the Widal was negative. A few days later, however, it was positive in dilutions of 1:40 and 1:100. A month later it was negative. He thinks the case explanable by the passage of bile into the blood, as it has been demonstrated that the serum of icteric patients has the agglutinative properties for typhoid. In this case, however, no signs of icterus appeared until a day before death, and long after the positive Widal reaction had disappeared. READ.

EARLY DIAGNOSIS OF ICTERUS. By Bouma, Deutsche Med. Wochenschr, November, 1902, and Am. Med., August 22, 1903.)

[The report of the above case by Megele makes the following review of special interest.—H. M. R.] Bouma states that he has often observed cases in which bile pigment was found in the circulating blood without appearing in the urine, the kidneys perfectly normal and no jaundice whatever of skin or conjunctiva. He cites several cases and describes the tests used to demonstrate the pigment. In urine containing urobilin and bile pigment the best results were obtained by adding 2 cc. of a 10% sol. calcium chloride to a 8 cc. fresh acid urine, and then neutralizing this with a weak ammonia solution. Remove the precipitate and the supernatant fluid will give a greenish blue absorption band, typical of urobilin. The sediment tested with ferric chloride solution will give a green color in presence of bile pigment.

To examine blood serum, Bouma mixes 2 cc. of blood serum with 6 cc. of distilled water, and 1 cc. of normal solution of sodium phosphate; add to this 1 cc. normal solution of barium chloride and centrifuge. The sediment is shaken with water, and again centrifuged, and then tested with Obermayer's solution of ferric chloride. The smallest quantity of bile coloring matter will produce a distinct bluish green color. READ.

AN ANALYSIS OF CASES OF GASTRIC ULCER OCCURRING IN THE ROYAL VICTORIA HOSPITAL IN THE LAST EIGHT YEARS. (Cautile, Montreal, Med. Jour., April, 1903, and Am. Jour. Med. Sciences, August, 1903.)

Cautile reports 85 cases of gastric ulcer out of a total of 20,596 cases admitted to the Royal Victoria Hospital in the past eight years, or a percentage of 0.004. Of these, 82 were females and 3 males. Ages were from 17 to 70, the average being 27 years. There were eight under 20 and ten over 40 years of age. The largest number were in the third decade and all perforations took place in this decade. Thirty-four cases were servants, 14 housekeepers and the balance divided among varied occupations. In three cases the cause was due to injury. The onset was manifested by pain in 78, by vomiting in 68, and by hematemesis in 45 cases. Anemia was an associated condition in 42 cases. Perforation occurred in eight cases. The surgical treatment cured seven of the eight perforations. Two of the 85 died, one from perforation and one from hematemesis. READ.

DERMATOLOGY.

Edited by
L. H. REDON, M. D.,
Seattle.

SOME PRECANCEROUS AFFECTIONS OF THE SKIN, MORE PARTICULARLY PRECANCEROUS KERATOSES. (By M. B. Hartzell, M. D., in The Journal of Cutaneous Diseases, September, 1903, p. 393.)

A small number of diseases of the skin, after existing for a shorter or longer period as benign affections, exhibiting neither the clinical nor the histological features of malignancy, terminate in epithelioma. This termination, although far from being the rule, occurs in a sufficient number of cases to exclude the probability of mere coincidence, and to warrant application of the term precancerous to such affections. These diseases do not belong to a single pathological group, but include inflammations, neoplasms, hypertrophies, and such alterations of the skin as may result from previous disease or injury.

Volkmann called attention to a peculiar inflammation of the skin occurring in workers in tar and paraffin which showed a special predisposition to be followed by carcinoma. This paraffin dermatitis is a multiform inflammation of the skin characterized by red, oozing patches resembling eczema, by psoriasiform lesions and follicular inflammation resembling acne, beginning acutely or coming on gradually.

The so-called chimney-sweeps' cancer, which followed a dermatitis of the scrotum due to the irritation of the soot, was very like, if not identical with, the paraffin dermatitis of Volkmann.

Lupus vulgaris is, in a small proportion of cases, followed by epithelioma. Ninety-seven cases of lupus were reported by thirty-seven observers, one observer alone reporting six, in which epithelioma occurred. The epithelioma is said to develop in the scar tissue of an old lupus, or in the lupus tissue itself. Other forms of cutaneous tuberculosis, such as tuberculosis cutis verrucosa, may terminate in epithelioma. Lupus erythematosus has also been reported to have been followed by epithelioma. The ulcerating lesions of tertiary syphilis, in rare instances, become the seat of cancer.

New growths of the skin, congenital or acquired, after a longer or shorter duration as benign affections, may undergo cancerous change; warts and the pigmented nevi showing the greatest tendency to such a metamorphosis. Of 223 cases of carcinoma of the extremities collected by Volkmann a trifle more than ten per cent. had their origin in congenital or acquired warts. Cicatrices arising from any cause, but more particularly those resulting from burns, are prone to become the seat of cancer.

Various forms of circumscribed keratosis, such as cutaneous horns, callosities, the palmar and plantar lesions resulting from arsenical poisoning, and senile keratoma form an important group of precancerous affections. It may be well to note, that, although arsenical keratosis is usually the result of chronic poisoning with arsenic, it may, in exceptional cases, come on quite acutely after the administration of comparatively small quantities of the drug. The most frequent, and perhaps the most important form of precancerous keratosis, is that seen so frequently in the face and on the hands of adults past fifty years of age, to so-called senile seborrhea, the senile keratoma of Bisner.

X-ray dermatoses are also included in the list of precancerous affections.

REDON.

THE TREATMENT OF PSORIASIS. (By Freeman, Edinburgh Med. Jour., April, 1903, and Therap. Gazette, Sep. 1903.)

The writer states that it is not wise to believe dogmatically either in external or internal treatment taken by itself. The majority of cases will most quickly get well if they are treated by both methods. Acute cases will, as far as internal treatment is concerned, be more likely to be benefited by salicin or by the salicylates than by any other drugs. When there is much itching, full doses of nux vomica should be combined with salicin. The salicin may be given up to 60 grain doses. When there is much neurosis, this treatment should be aided with the bromides. Powerful external remedies should not be used.

All cases, and particularly the acute cases, will improve rapidly with complete rest in bed, and perhaps absolute rest is the one specific for the complaint.

Alkaline warm baths may be safely prescribed in all cases, but in the oily type of cases sulphur is to be substituted for or combined with the alkali. The bath treatment, when it can be carried out, is very important.

Of the external applications, chrysarobin, in spite of its staining and somewhat irritating properties, still remains the best we can employ. Its use should be avoided about the neck, and it is not to be used anywhere in an inflammatory type of the disease. Its strength requires careful regulation, and as a rule it should be rubbed in once or twice in the day. If traumaticin be used, it may be left on for three or four days, and some keratolytic agent should have been previously used.

There is no doubt about the good effects of thyroid extract in certain cases, but it is a dangerous remedy for old people, and a lookout for thyroidism is necessarily maintained whatever be the age of the patient. Heroic doses seem to be unnecessary, and the larger dose may be best given at bedtime. The author thinks the method of giving arsenic with it helps to prevent ill effects.

Arsenic is a useful remedy, in suitable cases. The majority of cases relapse; if they do not already know it, patients should be told this. A majority of cases clear up temporarily, or permanently, quite unaccountably. There is no occasion to tell the patient this. The treatment on the whole is now more successful than it used to be.

REDON.

DRUG ERUPTIONS. (By Pernet, Merck's Archives, September, 1903.)

Pernet divides drug eruptions, not by the poisons which caused, but according to the character of the skin lesion.

1. *Erythematous, papular*, and *urticarial* eruptions form the first group. They may be caused by atropine, arsenic, quinine, copaiba, or antipyrine, by chrysarobin, mercury or iodoform locally, and occasionally by a number of other drugs. The diagnosis is often difficult. From scarlet fever the differentiation is made chiefly by the mode of onset, the examination of the urine and the absence of corroborative symptoms. Multiformity of lesions is rather in favor of drug origin. The existence of any disease likely to be treated by one of the above-mentioned drugs as gonorrhea (copaiba) or headaches (antipyrine) should make the practitioner bear in mind the possible toxic origin of the skin lesion.

2. *Vesicular* and *bullous* lesions may be caused by antipyrine, quinine, arsenic, salipyrine, or the salicylates, and less frequently by

morphine, chloral, or mercury. Iodides may sometimes cause bullae, but rarely, unmixed with pustules.

3. *Pustular* eruptions are most commonly due to bromides or iodides. The bromide rash has frequently been mistaken for syphilis. In making the diagnosis it must be remembered that bromides are taken for many conditions, and are found in a number of proprietary remedies, so that the history is unreliable.

4. *Purpuric* rashes may be made largely by the drugs mentioned under (1). The diagnosis must be made largely by exclusion.

5. *Pigmentation.* Arsenic may cause a dirty brownish deposit on parts of the skin not exposed to the air. The belief that this is more common in blondes is fallacious. The coal tar antipyretics have also been known to give rise to permanent deposit of pigment. The blue discoloration caused by prolonged use of silver is well known.

REDON.

OBSTETRICS AND GYNECOLOGY.

Edited by

P. W. WILLIS, M. D., Seattle.
W. A. SHANNON, M. D., Seattle.

THE EFFECTS OF THE TOXEMIA OF PREGNANCY UPON THE CARDIO-VASCULAR SYSTEM. (By Richard C. Norris, M. D., American Journal of Obstetrics, July, 1903.) The writer directs attention to the effect of toxemia in pregnancy on the cardio-vascular system. He says that this toxemia is wide spread and may affect any organ. He relates three cases in which he believes the poison overwhelmed the heart and caused what he calls cardiac eclampsia. He bases his argument on a physiological study of Meltzer, in which it is shown that in a prolonged stimulation of the cardiac nerves the vagus is first exhausted, while the accelerator nerves continue in action and the same condition obtains in the vascular system, the vaso-constrictors continuing their action longer. This gives rise to the rapid pulse of high tension which is observed just before the outbreak of an attack of eclampsia. He calls attention to the importance of the sphygmographic tracing of the pulse in pregnancy, especially if eclampsia is threatened. These cardio-vascular changes often result in convulsions, but instead of the brain the heart may be the organ affected and thus cause cardiac eclampsia. He then relates three cases which apparently bear out his theory and he concludes as follows: "I have no doubt that some cases of sudden death after labor can be explained by an unrecognized toxemia originating during pregnancy and suddenly declaring itself by what I have termed a 'cardiac eclampsia.'" WILLIS.

TWO CASES OF NORMAL PREGNANCY FOLLOWING OPERATIONS FOR EXTRAUTERINE PREGNANCY. (By Francis D. Donoghue, M. D., Annals of Gynecology and Pediatry, July, 1903.) Donoghue reports two cases under the above heading, as a basis for his argument in favor of leaving the healthy tube and ovary when operating for extrauterine pregnancy. He quotes authorities who advise the removal of both tubes and ovaries in all cases of extrauterine pregnancy, on account of the possibility of the same condition occurring later upon the opposite side. The trend of his paper is to show that it is only in certain cases advisable to remove both tubes and ovaries and that it is more often better to leave the one not involved, and even if it is necessary, to prevent pregnancy, he contends that it is probably better to resect the tube, allowing the ovary to remain. He also urges that a patient after operation for extrauterine pregnancy be very carefully watched for any irregularity of menstruation. WILLIS.

A PRELIMINARY REPORT ON ELECTROTHERMIC HEMOSTASIS WITH THE DOWNE'S INSTRUMENTS. (By A. Goldspohn, American Journal of Obstetrics, August, 1903.)

The author makes a report of the Downe's electrothermic instruments. He believes them especially valuable in vaginal hysterectomy. He gives the technic which he practices, and then, after giving a few points of difference with Dr. Downes, offers the following conclusions as to the advantageous features of this method.

"Patients are more comfortable after operation, I think, because the nerves in the stumps so treated are insensitive, which is not true in ligated stumps.

"2. As these pedicles are probably sterile and become disintegrated and absorbed, they cannot give rise to adhesions of viscera, as we know that ligated stumps often do.

"3. There is less blood lost, because this hemostasis is complete and wholly an antecedent or preventive one, which is not so true of hemostasis by ligation, in which it is often better to avoid the formation of large stumps by preceding ligation en masse, and to tie the individual spurting vessels after the severing incision has been made. And when this cut is made within the extent of the band of baked tissue, as can be done after the larger forceps has been used, there is no show of blood from either side of the incision.

"4. This method of hemostasis is certainly more nearly ideal, because it does not involve the introduction of a foreign body and it is more nearly ideally aseptic than is the use of any kind of ligature material which always implies the possibility of its not being aseptic, either from defective preparation or from manipulation by the only omnipresent instruments (the hands), which cannot be boiled.

"5. In vaginal hysterectomy it is superior, (a) in cancer cases, because it most nearly destroys the tissues which otherwise compose the stumps or pedicles and thereby diminishes the chances for a recurrence both from imperfect removal of diseased tissues and from implantation of cancerous elements. (b) In all instances of this operation it is furthermore of distinct advantage, because it does away with both a difficult and tiresome form of ligation and also the very objectionable use of clamps, and it (c) thereby facilitates a very important part of the operation, i. e., closure of the peritoneal cavity and avoidance of the train of intestinal disorders which often follow after the sojourn of a foreign body within the peritoneal cavity. (d) By avoiding ligatures, it avoids danger of secondary hemorrhage, and also of infection from such ligatures when they become infected before they are absorbed or cast off." WILLIS.

BOOK REVIEWS.

Edited by
KENELM WINSLOW, M. D.

GYNECOLOGY. A TEXT-BOOK FOR STUDENTS AND A GUIDE FOR PRACTITIONERS. (By William R. Pryor, M. D. 380 pp., 6x9 inches, 163 illustrations. $3.50, cloth. D. Appleton & Co., 1903.)

The appearance of this new book on gynecology by Pryor is certainly a useful addition to medical science. The book does not purpose to be an encyclopedic work on the specialty it treats, but is written in a remarkably clear, forceful and concise style. It does not pretend to usurp the place of such work as Kelly's nor of "systems," but as the writer states, "the work is chiefly notable for the absence of bacteriology and minute anatomy, and to the prominence given to non-operative as well as operative treatment."

It is an exceedingly practical book, and there is nothing to say adversely; in fact I am almost tempted to say that the work must soon attain Pryority as a gynecological text book. There are a number of excellent exhaustive treatises on the subject and not a few exhausting ones, and it is therefore refreshing to come in contact with a thoroughly good one. Pryor makes a strong and seductive plea, based on facts, to show that operations for the ablation of pelvic growths and organs are attended with less shock, liability to sepsis and danger to life, when done through the vagina. This may be true when the operations are performed by experts but in the hands of the average surgeon the abdominal opening will afford a better view and command of the situation. Lamentable instances have come to my notice of long, bungling and fatal operations for the removal of small, intrapelvic growths per vaginam, which were undertaken by men with good, general surgical ability. Nevertheless, Pryor's description of his operation for hysterectomy by hemisection and morcellation per vaginam cannot fail to excite admiration and interest in the mind of the surgeon, perhaps not altogether free from pique. The first 183 pages are devoted to descriptions of special diseases, and the latter portion of the book to surgery. The writing displays the mind of a master and is developed from the knowledge and convictions of a large experience. It is not a book made out of other books but contains much that is original, as the writer's reputation and contributions to science would lead us to expect. The numerous photographic plates are exceptionally good, also the typography and paper. WINSLOW.

PROGRESSIVE MEDICINE. A QUARTERLY DIGEST OF ADVANCES, DISCOVERIES, AND IMPROVEMENTS IN THE MEDICAL AND SURGICAL SCIENCES. (Edited by Hobart Amory Hare and H. R. M. Landis. Vol. II, June, 1903. $2.50. Cloth, 6½x9¾ inches, 437 pp. Lea Bros. & Co., Philadelphia and N. Y.)

This publication continues to be the best of its kind and stands head and shoulders above annuals and year books. Nothing in its class has approached it for thorough practical and scientific value in my experience. In this number may be found abdominal surgery, gynecology; diseases of the blood, including hemorrhagic and metabolic diseases, and ophthalmology. Coley starts with an exhaustive account of recent progress in connection with hernia. His own statistics are 1066 operations for inguinal femoral hernia, with two deaths. Eight hundred inguinal hernias, by Bassini method in most cases, with 14 relapses, 1.7 per cent. He quotes Busse on 22 cases of operations for umbilical hernia; 75 per cent relapsed with large herniae (size double that of man's fist or larger), 50 per cent. of relapses after medium sized hernia (size of small apple to goose egg), while there were no relapses following operations upon small umbilical herniae (not larger than a walnut). Coley and Bull affirm that their opinion coincides with that of Busse, that only in small umbilical herniae can a definite cure be promised. [Compare this with Mayo's wonderful record reported in Journal of A. M. A., July 25, 1903, of 36 operations by his method, on cases extending over a series of many years and with only one partial relapse and no deaths and most of the cases large umbilical hernias. I think Coley may alter his mind on studying Mayo's cases.] Coley also treats of peritonitis; stomach and intestinal surgery, including a very interesting account of perforating gunshot wounds of the abdomen, occurring in the late three wars, with deductions to be drawn therefrom. Intestinal growths next receive attention, and late knowledge concerning progress in surgery of the liver, pancreas and kidney.

Clark reviews the field of gynecology and devotes especial attention to cancer of the uterus to which he has in the past made valuable original contributions, himself. The operative treatment of retrodisplacements is next in order, and the pros and cons of ventrosuspension, ventrofixation, shortening of the round ligaments and newer methods are thrashed out, afresh.

Atmocausis (the intrauterine use of live steam) to cause complete disappearance of the uterine canal, through the effects of inflammation and removal of the endometrium, and other methods and indications for artificial sterilization of women receive careful consideration. Extra-uterine pregnancy, myoma uteri, and tuberculosis of the genitourinary system are extensively discussed in the light of new knowledge thrown upon these diseases.

Alfred Stengel edits the department devoted to consideration of the blood, blood disorders and diseases of metabolism. He presents his summary of recent literature upon eosinophilia; blood-poisons; blood in high altitudes, in pregnancy and after exanthemata. Our latest knowledge about anemia, pernicious anemia, chlorosis, leukemia, Hodgkin's disease, splenic anemiais are ably considered. Clinical examination of the blood, and hemophilia and purpura are next treated.

The article closes with the description of new discoveries and additions to our knowledge of diabetes, myxedema, exophthalmic goitre, Addison's disease, acromegaly and gout. Only four cases of the latter disease, in 28,000 patients admitted to the Massachusetts General Hospital during the last ten years, have been discovered, showing the astonishing rarity of gout, at any rate in hospital patients, in this country.

The ophthalmological department is presided over by Edward Jackson. Under this head may be found diseases of the conjunctivae, cornea, of the uveal tract, of the sympathetic apparatus, of the optic nerve, retina, lens, lachrymal passages; together with glaucoma, disorders of ocular movements, tumors, injuries and foreign bodies. The whole work is undertaken by editors who evidently give much care and time to their work and not only select judiciously from current literature but, being authorities in their subjects, the discriminating remarks by them of the matter presented are of great practical value.

WINSLOW.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, EMBRACING THE ENTIRE RANGE OF SCIENTIFIC AND PRACTICAL MEDICINE AND ALLIED SCIENCE. By various writers. A new edition, completely revised and rewritten. Edited by Albert H. Buck. Vol. 6. Illustrated by colored plates and seven hundred and sixty-three halftone and wood engravings. (Complete in 8 volumes.) 11¼x8 inches, 1004 pp. In cloth, $56 for set. Wm. Wood & Co., New York.

The present volume, just issued, includes subjects in alphabetical order from MOS to RYE. It is, of course, impossible to review in detail this monumental encyclopedic work, and as impossible to find a reader for it if accomplished. But, to give one a slight impression of the varied subjects covered, the following may be noted: Mount Clemen's Mineral Springs; Mt. Desert, Me. Thirty-four pages are given to Naval Hygiene and Naval Medical Service. Twelve pages are devoted to Neurones. Notification of infectious Diseases. Training School for Nurses. Pharmacopeia's, 10 pp. Photomicrographs. Phototherapy. Pneumatic Cabinets. Poisonous plants and reptiles. Polarimetry. Porto Rico. Premature Infants. Pseudoleukemia Infantum. Pseudotumors. Ptomaines. Puberty. Quarantine. Railway Medicine. Recruits. Reduction Division (of cells), 7 pp. Refuse Disposal. Reversion (in heredity). The work closes with an article on Rutland, Mass., in which is an account of the state sanatorium for consumptives, with plans and illustrations—the first of its kind, I believe, to be attempted in this country.

While so-called "systems" have come into some disrepute with medical men, the work under consideration could, of course, be written in no other way, and includes, in its diversity of matter, subjects to be found in no other one volume in the manner treated. The writers are among the best, as may be appreciated by some of the following names: Cabot, Councilman, Chittenden, Dawbarn, Charles Harrington, Lezynsky, MacCallum, Charles Sedgwick Minot, Northrup, Opie, James J. Putnam, Ransohoff, Charles Rice, Hunter Robb, Rotch, Andrew H. Smith, Sternberg, Vander Veer, and Witthaus. These men would ensure reliability and worth for the work, but the publication is so well known that further commendation is unnecessary. WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

To the Washington State Board of Health for September, 1903.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	0	0	2	0	10	0
Clallam	0	0	0	0	0	0	1	0
Columbia	0	0	3	0	0	0	0	0
Cowlitz	0	0	0	0	0	0	2	0
Douglas	3	0	2	0	0	0	3	1
Garfield	0	0	0	0	0	0	11	0
Island	5	0	0	0	0	0	0	0
King	0	0	14	0	0	0	2	0
Kitsap	0	0	0	0	0	0	3	0
Kittitas	0	0	0	0	1	1	2	0
Lewis	16	0	0	0	0	0	4	0
Skagit	1	0	0	0	0	0	0	0
Snohomish	4	0	0	0	1	0	4	0
Spokane	0	0	0	0	1	0	1	0
Stevens	1	0	0	0	0	0	0	0
Wahkiakum	0	0	0	0	0	0	5	0
Walla Walla	1	0	3	0	6	0	24	1
Whatcom	0	0	0	0	1	0	3	2
Whitman	2	2	1	0	1	0	1	0
Yakima	0	0	4	0	0	0	..	5
Seattle (city)	1	0	16	1	6	1	20	6
Spokane (city)	10	2	5	0	1	1	5	5
Tacoma (city)	0	0	2	0	6	1	0	0
Total	44	4	50	1	26	4	101	20

All counties have reported a health officer excepting Franklin county and this month the reports of contagious diseases are practically complete. A new outbreak of smallpox is reported at Winlock in Lewis county which is under good control. Reports of typhoid fever are more complete than at any time. A rather severe epidemic is evidently prevailing in Yakima county, though the county health officer has not reported the number of cases. Unofficial information indicates a large number.

Elmer E. Heg, Secretary.

MEDICAL SOCIETIES.

NAME. MEETINGS HELD.

Washington State Medical Association..........................1904—Seattle
President, F. H. Coe, M. D.; Secretary, A. H. Coe, M. D.

Chehalis County Society..............................Second Tuesday—Aberdeen
President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

King County Society..........................First and Third Monday—Seattle
President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

Pierce County Society.......................Second and Fourth Tuesday—Tacoma
President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.

Skagit County Society ....
President, F. B. West. M. D.; Secretary, C. C. Harbaugh, M. D.

Snohomish County Society..............................First Thursday—Everett
President, W. C. Cox, M. D.; Secretary, C. B. Betts, M. D.

Spokane County Society..............................First Thursday—Spokane
President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.

Walla Walla County Society....................Second Wednesday—Walla Walla
President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.

Whatcom County Society..............................Second Monday—Whatcom
President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

Whitman County Society ....Oct. 2—Tekoa
President, G. B. Wilson, M. D.; Secretary, E. Maguire, M. D.

Yakima County Society............................First Tuesday—North Yakima
President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.

Oregon State Medical Association.................Sept. 29 and 30 1904—Portland
President, W. T. Williamson, M. D.; Secretary, L. H. Hamilton, M. D.

City and County Medical Society of Portland..........First Wednesday—Portland
President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.

Multnomah County Medical Society....................First Tuesday—Portland
President, E. M. Crockett, M. D., Secretary, L. Victoria Hampton, M .D.

Montana State Medical Association....................May 18 and 19, 1904—Butte
President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.

Silver Bow Medical Society...............Second and Fourth Wednesdays—Butte
President, Donald Campbell, M. D.: Secretary, J. A. Donovan, M. D.

Idaho State Medical Association....................Oct. 8 and 9 1904—Lewiston
President, J. L. Lonant, M. D.; Secretary, E. E. Maxey, M. D.

Northern Idaho District Medical Society........................June 9—Lewiston
President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.

Southern Idaho District Medical Society............................July—Hailey
President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.

British Columbia Medical Association..................Oct. 30 and 31—Victoria
President, O. M. Jones, M. D.; Secretary, C. J. Fagan, M. D.

Vancouver Medical Society..Vancouver
President, R. C. Boyle, M. D.; Secretary, J. S. Conklin, M. D.

New Westminster Medical Society............Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal

SEATTLE NURSES' BUREAU

If you need the services of a Graduated Nursecall on the Superintendent

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1115 Madison Street, or Phone John 411, and she can supply you on short notice.

Graduated Nurses' Association

NAME.	QUALIFICATION.
BEAN, MISS ALTA	Graduate Grace Hospital, Detroit.
BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
CROWL, MISS FLORENCE I	Graduate Seattle General Hospital.
DAM, MRS. EVA L	Graduate Seattle General Hospital.
DE VECKMON, MRS. E	Graduate Seattle General Hospital.
FREMMING, MISS THORA H	Graduate City and County Hospital, St. Paul.
FEEHAN, MISS ANNA	Graduate St. Joseph's Hospital, St. Paul.
GILLISPIE, MISS CORA E	Graduate Illinois Training School for Nurses.
GREEN, MRS. ANNIE G	Graduate Good Samaritan Hospital, Portland.
GREGG, MISS MINNIE	Graduate Women's Hospital, Syracuse. N. Y.
HUGHES, MISS M. A	Graduate Dublin General Hospital.
HUBBS, MRS. F. H	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
HUMPHREYS, MISS ALICE HOYD	Graduate Fabiola Hospital, Oakland, Cal.
KENNEDY, MISS	Graduate St. Luke's Hospital, Duluth ; Sloan Maternity, New York.
LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W	Graduate Royal Jubilee Hospital, Victoria.
RAY, MISS JENNIE	Graduate Seattle General Hospital.
SHROEDER, MISS H. L	Graduate Seattle General Hospital.
SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
SLATER, MISS MAME	Graduate Eastern Illinois Hospital.
SHIACH, MISS MARY	Graduate Seattle General Hospital.
STRAHL, MISS INEZ	Graduate Asbury Hospital, Minneapolis.
STRONACH, MISS MINNIE	Graduate Brompton Hospital, London.
WAGNER, MISS IDA	Graduate Riverside Hospital, Milwaukee.
WANAMAKER, MISS NIDA	Graduate Seattle General Hospital.

O. M. JONES, F. R. C. S. ENG.
President British Columbia Medical Association, 1903.

NORTHWEST MEDICINE

November, 1903.

PRESIDENT'S ANNUAL ADDRESS.*

By O. M. Jones, F. R. C. S. Eng.

VICTORIA, B. C.

Allow me, first of all, to thank my fellow members of the British Columbia Medical Association for the honor they have done me by electing me to fill the position of president.

I must extend to all our visitors a hearty welcome, and especially to our professional brethren from across the line. I do so on behalf of the members of the British Columbia Medical Association and the members of the profession in Victoria. Fortunately, our profession knows no nationality, nor are our relations affected by boundary lines or other international questions. A medical man is a medical man the world over. We work in the same field, and the aim and object of our lives is to solve the causes of different diseases, to prevent them from occurring if possible, and to treat them successfully.

There is, I may safely say, a fellowship among us that exists only in this, the medical profession. With the same spirit we look upon our great teachers; with the same reverence their memories are alike dear to us.

The profession of medicine is not one of luxury and ease, as most of us know. We have all had a great many unpleasant experiences. The irregular life is the least of them, when compared with the awful responsibility we have with one anxious case. In most cases the relatives and friends have no idea of the anxiety that serious cases cause us, and, more often, of the very dangerous and critical conditions we have carried them through by some well-judged treatment that we may have adopted.

There is, I am sorry to say, a tendency amongst some of our legislators and others (in this, and I dare say in other provinces) to regard the medical profession as a protected society or guild. It may be well to point out here the difference between a trades society and our profession: The business man looks after his own interest first, and it is left for those who deal with him to judge for themselves and protect their own interests. The professional man stands in exactly the opposite position: his chief interest is for the benefit of the sick; the sick have to trust implicitly to his honor. This has not often been abused; otherwise, the public would not have that confidence in the profession they have hitherto shown.

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*Delivered before the British Columbia Medimal Association at Victoria, Oct. 30 and 31, 1903.

The great progress made in medicine during the past few years renders it impossible for me to do more than refer to a few of the more recent and useful additions to our knowledge:

In diagnosis and prognosis, blood examination has proved a valuable aid and has now passed beyond the experimental stage into a recognized method.

Cryoscopic examination is in the more experimental stage, though it may still turn out of great value.

The treatment by light and the x-ray is being continually extended and its uses more clearly defined. In the treatment of fractures, where easy apposition is difficult to obtain, it is most essential that an x-ray examination should be made. By so doing, valuable time can be saved, the interposed parts detected, then removed, and the ends of the bone brought accurately into their place.

The number and variety of operations upon the different abdominal viscera is increasing. The profession at large are becoming more familiar with the conditions affecting these parts, and these, therefore, are more frequently treated. The best method for intestinal anastomosis is still unsettled. This is very evident from the number of appliances that have been invented at different times to perform the operation. Simple end to end suture is the ideal method, but the time taken in its performance is the main objection to its use. There is a growing tendency at the present day to the performance of lateral anastomosis or approximation, as being the most easily accomplished, the most rapid in its performance, and the least likely from which to fear the development of sloughs.

The operations upon the gall-bladder have been greatly simplified; the elaborate instruments formerly employed in extracting a stone from the common bile-duct have now been discarded; the gall-bladder is freely opened, the finger passed in and the stone lifted out.

There still remains much to be done in determining the causes of diseases of the pancreas, because, unfortunately, these as yet are not quite clearly defined.

The enlarged prostate has certainly received its share of attention during the last year or two. A condition that in former years was practically incurable is now, with few exceptions, amenable to rational treatment. The two routes—the suprapubic and the perineal—have each their warm advocates. Both routes, I have little doubt, are equally good, and I believe that a successful result in any of these cases depends more upon the condition of the patient operated upon—especially his kidneys and general state of health—than upon the route of the operation.

Operations upon the nervous system also share in the same progress. Up to the present time only a few men have made their mark in this field of surgery, and without a very special and prolonged training it is a part of the human body that is not likely, to any great extent, to attract the general operating surgeon. The localization of cerebral troubles requires great care, a familiar knowledge of the anatomy of the brain and spinal cord, and a logical mind. Lesions of the brain are so often accompanied by such complex symptoms that the most experienced neurologists have often a difficulty in arriving at a diagnosis. Still, of late years, the number of operations successfully performed for the removal of tumors from different parts of the brain and spinal column has greatly increased.

We all know that the reason for the great progress which has been made in the field of surgery is due to the aseptic treatment of wounds. And again, in connection with this, I believe that of late years the introduction of the use of rubber gloves has been one of the most important details in carrying out an aseptic technic. It is often impossible to make sure that the neighborhood of the nails is clean, or that the hands or arms of one or other of your assistants may not be affected by a septic wound or pustule. During a prolonged operation in the peritoneal cavity, an appreciable amount of septic material would be introduced, however well one's hands were washed and chemically sterilized, if it were only from the secretions of the glands of the skin. I am sure that if I had adopted the use of gloves earlier many an anxious case would have been saved for me.

These advances in our scientific knowledge, with the more thorough methods of examination, have greatly simplified the treatment of diseases. Notwithstanding this, however, there is often a too-ready resort to operative procedure before every possible means has been taken to make a diagnosis.

This great increase in our knowledge must result in specialism in surgery; but in my opinion no specalist is properly educated who has not previously acquired a thorough knowledge of the different departments of medicine. In fact, the good specialists one knows of are those who are developed out of general hospitals, and not solely in special hospitals. We are in many cases indebted to specialists for the advancement made in different branches of operative surgery.

It is well, here, to recall the services that the profession has at different times given to the State.

Look at the service of Jenner: By vaccination, smallpox is no longer the fearful disease it was, producing its dreadful disfigurements. Vaccination, as we know, is a sure method for the prevention of smallpox. The elaborate and expensive precautions taken by the Province year after year in guarding the different points of entry from localities where smallpox is known to have broken out can be dispensed with, if all the people in the Province be successfully vaccinated—a simple operation, that can in these days easily be performed, with absolute safety and free from any ill effects.

Diphtheria is now robbed of its deadly effects by the timely use of antitoxin, the benefit of which has been so nobly given to the world, without fee, by its discoverers. Who amongst us does not know of parents who would have given anything to have been able to avail themselves of the use of diphtheria antitoxin and by so doing have saved their children from death?

Here are men, probably of small means, who have devoted years of time and labor to the solution of the treatment of this dreaded disease, giving to the world a means of saving life which, had they been mercenary, would have brought them untold wealth. To be a member of the medical profession, you are bound to make known any discovery you may have made to relieve suffering humanity. Compare this noble behavior to that of the so-called discoverers of patent medicine and cancer cure quacks. This, gentlemen, is sufficient reason for the maintenance of professional ethics, which the public so often think unnecessary. Let me tell them, it is for their gain.

Again, we have Pasteur, Lister, and a host of others whose services to mankind deserve everlasting and grateful acknowledgment.

The best efforts of the profession have always been devoted to the prevention of the spread of infectious diseases—as diphtheria, cholera, enteric fever, etc.,—by the establishment of good sanitary laws, such as good systems of drainage, good water supply, and all considerations that have to do with the public health and anything that affects the well-being of the people.

The careful observation of the sources of disease has saved innumerable lives. It is most necessary for the physical and mental state of a people that they should be healthy and strong, and this they cannot be without good sanitary laws. It is our duty to help forward any movement that will improve the lot of those living in our Province, and members of this Association can in many ways aid the Government in matters relating to the health of the people. acting at all times as non-political advisers.

I have tried to lay before you the claim the profession has upon the public and the Legislature. On more than one occasion an attempt has been made to amend the Medical Act of this Province. Inexperienced politicians should not be allowed to impose unjust duties upon the profession and tamper with Acts that have been framed by wiser and more experienced heads for the protection of the public from an unqualified professional element.

As a profession, we are under the same laws as our fellow-subjects, and if we are supposed to have transgressed the limits of the law, the civil and criminal courts are open to our prosecutors; but for the Government to impose the duty of a criminal court upon the Medical Council is unheard of in any other Province of Canada, or in any other part of the world.

In a young Province, where the Government has such unlimited powers, there is a great temptation for enterprising members of the profession to obtain a charter for a medical college, but such a charter should be allowed only in conjunction with a university, whose sole aim is the advancement of learning and with the object of research, and not, as I regret to say is often the case, sought for the self-advertisement or self-advancement of the lecturers connected with these colleges.

When a university is necessary for the benefit of the Province, the Province must, and will, pay for it. It is far better for us to be without a university or a medical college unless it be worthy of the name. It must be well kept, and its staff well paid, so that they can travel and see what others do; and, until we can afford to do this, we should not attempt to have one. Every effort should be made to resist the attempt of starting diploma-manufacturing colleges in this Province, because, once started, they are difficult to abolish.

The passage of the Dominion Medical Registration Act would be welcomed by all of us who have the real interests of the profession at heart, and by that I mean the upholding of its high standard of training and education. It would also serve as a timely check to the starting-up of other medical colleges. It seems a great pity that this useful measure has encountered such opposition from some quarters in Canada. If our legislators at Ottawa have the welfare of their fellow creatures at heart, they should pass this Act without delay. By raising the standard of medical education the public will be able to avail themselves of the services of more experienced and competent men.

In conclusion, gentlemen, I wish to thank you all for the patient and kind manner in which you have listened to my address, because I feel that I have not been able to offer you anything new or original.

ORIGINAL CONTRIBUTIONS.

WHAT CAN BE DONE FOR CANCER?*

By Emory Lanphear, M. D., Ph. D., LL. D.
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CHIEF SURGEON OF THE WOMAN'S HOSPITAL OF THE STATE OF MISSOURI.

There is in surgery today no more important question than: What may be done for the relief of cancer? The malignity of the disease, its alarming and unexplainable increase, the uncertainty of its causation, the mystery of its disappearance under certain lines of treatment—all combine to render it of interest alike to physician, surgeon and pathologist. Our duty as medical men lies, not only in impressing upon the laity the necessity for early and radical removal—by one means or another—of every growth supposed to be malignant in character, but also in convincing many of our fellow practitioners that the disease is really curable by certain well-known measures; for there are thousands of doctors who still believe cancer to be of constitutional character *ab initio* and who therefore think operation at any time is not justifiable. These men are particularly bitter in their opposition to extirpation of scirrhus of the female breast and to hysterectomy for uterine carcinoma. If there is anything more firmly established in modern surgery than the fact that cancer at first is a purely local disease it is that equally important fact that, by early and thorough removal by operation, practically every cancer might—by timely interference—be completely cured. It is our duty at all times, at all places, under every circumstance, to strenuously spread the word that early recognition and excision mean life—delay means death.

Of the means at our command it may be said that the latest, cure by radium rays, is of interest as yet only as a surgical curiosity—the cost of the metal placing it beyond the reach of any of us. From reports thus far published it would seem to promise even more than the x-ray; but the future alone can determine its range of applicability.

The Finsen light (concentrated arc light deprived of much of its heat) is giving the most brilliant results at the Copenhagen Institute, especially in the cure of superficial epithelioma, tuberculous ulcers of mucous membrances and lupus, though all forms of malignant disease are being treated,—and with surprisingly good results in some cases. It is necessary to say that some unscrupulous instrument makers have flooded the country with circulars, descriptive of a form of apparatus not at all like that devised by Prof. Finsen—instruments with which it is impossible to get the good results obtainable with the proper machine. Those who intend to purchase should therefore see that the "telescope" is an exact duplicate of the one used by the originator of the treatment. The method is certainly worthy of further trial—always with the proviso that it be reserved for those cases too far advanced for operative treatment.

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*Synopsis of the address in Surgery before the Idaho State Medical Society, Boise, Idaho, October 8, 1903.

Solar cautery is also being extensively employed with almost equally good results. It does not require such expensive apparatus as the Finsen light and, unlike that form of treatment, it results in a deep burn (it being nothing more and nothing less than pure local cremation) though it is surprisingly free from pain.

The x-ray is giving some very gratifiying results, though it cannot yet be said to have effected a perfect cure in any case. Many cancers apparently cured have recurred; others have died unimproved; but in most instances results have been more or less favorable, even though total destruction of the malignant disease may not have been secured. The great advantage of the Roentgen ray treatment is the fact that patients will often submit to its application who would not permit anything which savors of operative treatment. Moreover, it may be employed in the cases which are beyond the hope of operative cure—the temporary relief from pain being truly remarkable and the psychic effect therefore marked, the hope and courage and appetite of the victim being greatly stimulated.

The chief disadvantage of the x-ray treatment of cancer is the fact that the general practitioner, equipped with a good static machine and Crooke's tubes, is tempted to use the electric current rather than advise recourse to the knife—a temptation accentuated, alas, by the fact that, if the case goes to a surgeon, it is a financial loss to the doctor who first treats the case. But as we are not yet positive that the x-ray does cure, every conscientious physician will adopt the rule to give every patient the benefit of an operation if surgical treatment promises a cure—reserving the x-ray to (1) those patients who positively refuse operation, however strongly indicated and urged. (2) those cases clearly too far advanced for surgical relief, (3) those growths not quite positively known to be malignant and (4) as a routine treatment after operation. In cancer of the breast, particularly, it is desirable to use the x-ray for some weeks immediately after the operation-wound has healed, in order to destroy any foci of cancer which may have escaped excision or have been left near the line of incision—a quite frequent cause of recurrence in this operation.

The best results from the x-ray are being obtained in superficial epitheliomata, lupus and tuberculous lesions, though many other forms of malignant growth are showing gratifying changes. The deeper cancers: those of stomach, liver, uterus, etc., have shown no favorable results except lessening of pain and in such cases nothing definite should be promised the over-sanguine patients, whose hopes have been raised to the highest degree by the glowing newspaper "cures" and the advertisements of quacks who have not been slow to take advantage of the popular interest in Roentgen's discovery.

Turning attention, now, to the various regions of the body it may be said:

Cancer of the Face.—For epithelioma of the lip, nose, ear, etc., the use of the Paquelin cautery cannot be too strongly urged. While early operation here as elsewhere promises perfect cure with least disfigurement, unfortunately many patients will not consent to excision, so strong is the opposition to the use of the knife; but if at a very early stage such patients are told that the suspicious growth may be removed by the use of caustics or pastes they will consent to treatment; and, if they are told that the same result can be obtained in five minutes by the use of the Paquelin that are attainable by many days' application of arsenical or zinc pastes (or even the sorrell paste used by "granny" cancer quacks)—and especially if assured that the suffering and scarring will be far less—they will yield gracefully. In the use of the Paquelin it is essential (1) to know that there is no extensive glandular involvement and (2) to burn at least a quarter of an inch into healthy tissue, in every direction beyond the suspicious area. The wound heals with surprising rapidity. The x-ray should be used if glands subsequently enlarge.

Cancer of the Eye-lid.—This can be treated only by excision if small; by excision and a plastic operation if large; or by x-ray.

Cancer of the Tongue.—This subject has not been given the prominence its importance deserves. It is frequent; it is prominent; it is early recognized; and it can be readily cured. Any sore or growth of the tongue persisting more than a few weeks is suspicious; if it does not show decided improvement inside of two weeks, under 40 to 60 grains of iodide of potash thrice daily, it should be excised. About one-third of the tongue may be removed without seriously crippling speech; it is not so bloody an operation as one would think; and it generally heals kindly. In late cases, with glandular involvement only slight, a most extensive (and most dangerous) operation may prove efficient—but should be tried, as the disease usually proves fatal inside of eighteen months.

Cancer of the Larynx.—Until lately nothing but a most extensive and mutilating operation has been regarded as possible for this condition—but now very excellent results are being obtained from the use of the x-ray; some cases having been apparently cured when seemingly past all hope. Results, if at all satisfactory, are obtainable within three or four weeks' treatment.

Cancer of Internal Organs.—Cancer of the viscera, of thorax and abdomen gives most unsatisfactory results from any form of treatment. Early excision of cancer of the cecum and of the gall-bladder has given a few cures; the most that can be said of the generality of cases is that it may prolong life, the x-ray being used after operation. Pylorectomy sometimes prolongs life in gastric carcinoma; but best results can usually be had from simple gastro-enterostomy through a slit in the mesocolon.

Cancer of Breast.—Here most brilliant results follow total extirpation, i. e., removal of the breast, the fat and glands of the axilla, those found beneath the clavicle and the scapula and the chain accompanying the long thoracic vessels. No attempt should be made at radical cure if the glands of the neck are involved. After healing has occurred the x-ray should invariably be used. If recurrence takes place along the line of incision, without axillary or cervical implication, excision of the chest-wall with the parietal pleura may be made, with fair prospect of cure.

Cancer of the Rectum.—Very early operation by the Kraske method prolongs life. In most cases, however, the best thing to do is to make an inguinal colostomy under cocaine anesthesia and later curet away the sloughing mass below—being sure to cut the sphincter. The x-ray does not promise much.

Cancer of the Uterus.—It is in cancer of the uterus, however, that greatest diversity of opinion exists. In New York and Philadelphia, for example, there are but few men doing hysterectomy for carcinoma of the cervix, though most surgeons there (as well as elsewhere throughout the world) operate for adeno-carcinoma of the body—the results being better than for epithelioma found at the os externum; but in the West many surgeons are urging more and more strongly, as time goes on, the necessity for early recognition and radical operation. In a recent collective investigation I was able to find seventy-six operators in the Mississippi valley who could report 291 women living five years after hysterectomy for cancer, the diagnosis being confirmed by the microscope in all but six cases.

In my own practice I have made more than 400 hysterectomies for carcinoma and have thirty-two patients living more than five years, and more than 100 living three years after operation.

With figures such as these, who can have the courage to say that hysterectomy for cancer is not justifiable? The immediate future will show a marked betterment of our statistics in carcinoma uteri, as soon as the general practitioner learns that in early operation there is hope. The technic of hysterectomy has advanced about as far as human ingenuity can perfect it; the responsibility therefore rests with the family doctor, who should ever bear in mind that any marked deviation from the normal menstruation, in a woman approaching the menopause, should be carefully investigated, especially if she be known to be the subject of lacerated cervix; that any showing of blood after menopause usually means cancer and should be made the subject of most thorough and repeated examination; and that, as soon as he has even a suspicion that there may be cancer, it is time to call counsel, and if both regard the symptoms as pointing strongly toward cancer, the services of a skilled gynecologist should be called into the case. Only then, and not till then, will our figures show a final death-rate not exceeding 70 per cent. It is indeed deplorable that so many die when practically all might be saved, would the patient consult her doctor early enough and he advise hysterectomy as soon as there is even a strong suspicion of malignancy. Let us hope the time is not far distant when far more of these valuable lives may be saved than is now possible under present conditions; that it may be so depends upon the knowledge and courage of the family doctor.

THE SURGICAL PROBLEM IN PROSTATIC HYPERTROPHY.*

By George W. Hawley, Ph. B., M. D.
SEATTLE, WASH.

The hypertrophy or overgrowth of any organ, in one or all of its tissue elements, presents two morbid anatomical changes: (1) An increase in the number or size of the cells of which it is composed. (2) Displacement of contiguous structures (other organs and tissues) due to the expansion of the hypertrophied organ, for physical laws teach us that no structure, surrounded by other structures, can enlarge without displacing them. The change in the *gland itself* becomes of pathologic significance only when increased functionating power results in functional overproduction, and in the upsetting of economic equilibrium of the physiologic system to which the organ belongs and, under such circumstances, becomes clinically manifest by symptoms referrable to the *organ itself.* The second morbid change, the displacement of *other organs,* only becomes of pathologic significance when such displacement causes interference with the function of the displaced organs and becomes clinically apparent by symptoms referred to them.

The role of the hypertrophied prostate, as a pathologic condition, is purely a mechanical one. It is only because its expansion causes displacement of the urethra and bladder, and thereby interference with the evacuation of urine, that it becomes of pathologic importance and clinically manifest. If hypertrophy of the prostate did not cause vesico-urethral displacement sufficient to impede urinary evacuation, it would excite no more clinical interest than the opposite condition of atrophy of the prostate. This is evidenced by the fact that hypertrophy may and does exist for many years before its presence becomes known by urinary obstruction, and in about one-half of all cases it exists without notice or harm from the time of its inception till death in old age.

When the harmless overgrowth of any organ causes pressure-displacement and disturbance of the proper function of another organ, it is not the offending but the offended organ which requires relief. In prostatic hypertrophy, then, we are not asked to treat the prostate, but the bladder. When an organ requires relief because by displacement its function is interfered with, natural efforts of relief would be directed toward preventing displacement or correcting it sufficiently to permit of proper performance of its function.

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*Read before the Washington State Medical Association, Spokane, Wash., September 1, 2 and 3, 1903.

Since the problem presented in the prevention and correction of any displacement is largely a mechanical one, requiring for intelligent solution a study of the forces producing and maintaining displacement, before considering methods of relief for vesico-urethral displacement due to prostatic hypertrophy, let us study the prostate and its surrounding structures, the mechanism of vesico-urethral displacement and of urinary interference.

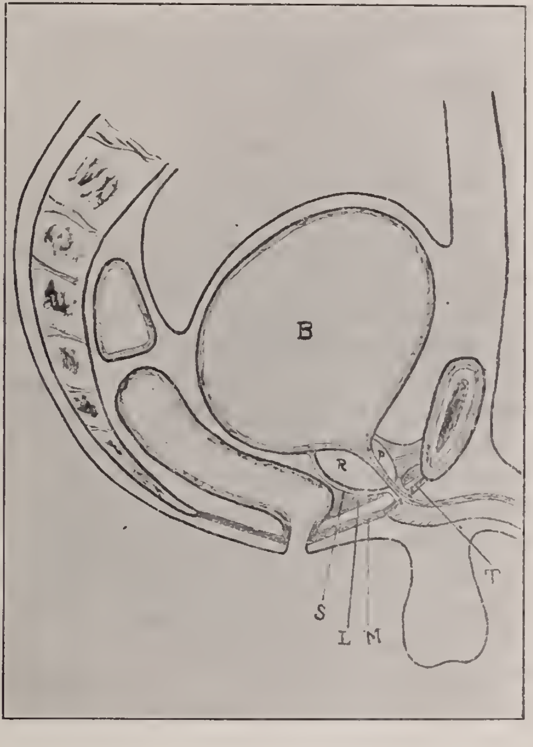

Fig. 1.

Diagrammatic sagittal section of the male pelvis showing the pre- and retro-urethral portions and their relations. *R.* Retro-urethral or Surgical Prostate. *P.* Pre-urethral Prostate. *B.* Bladder. *S.* Prostatic Sheath or Ligament. *L.* Levator Ani of left side. *M.* Recto-urethral Muscle. *T.* Triangular Ligament or Diaphragma Urogenitale.

The prostate is described as a cone-shaped organ about the size of a horse chestnut, with its base directed upward and slightly backward toward the bladder and its apex facing downward and slightly forward toward the triangular ligament. It has two lateral lobes and two commissures, the anterior commissure joining the lateral lobes in front, and the posterior uniting them behind the urethra. The lobulated prolongation of the posterior commissure upward and backward between the ejaculatory ducts is known as the middle or third lobe of Home. The first portion of the urethra with its enclosing muscle, the sphincter urethrae prostaticus (Kohlrausch), passes downward and forward between the lateral lobes of the prostate from base to apex, directly behind the anterior commissure.

In relation to the urethra, the prostate can be divided into the *pre-* and *retro-urethral* portions, four-fifths to five-sixth of the gland lying behind the axis of the urethra and only the small anterior commissure in front. This relation is important as regards displacement of the bladder and urethra. The prostate is composed of glandular, muscular and fibrous tissues. The former is distributed almost wholly in the lateral and middle lobes, the anterior isthmus or commissure containing but little, being composed almost entirely of muscular and fibrous tissue which are also distributed irregularly throughout the rest of the organ from the periphery to the urethra. The fibrous tissue spreads out on the periphery to form the dense, true capsule of the prostate. Externally, the prostate is surrounded (except its base, which is placed directly against the bladder) by a strong fascial sheath reflected from the posterior layer of the triangular ligament, from the apex to the base of the prostate and thence upon the bladder. This sheath encloses the prostate like a collar and, where it meets in front, passes forward to the pubes to form the puboprostatic ligament. This collar-like sheath with its attachment to the pubes serves as the suspensory ligament of the prostate holding it up, and, with it, the neck and floor of the bladder. This sheath has also been called the capsule of the prostate, but cannot rightly be so considered because it is not derived from the prostate, but from the pelvic fascia; it does not surround the whole organ, but only its sides, and is but loosely joined to it. Of other relations to the prostate, we have the bladder, floor and neck above; the pubes and pubic arch supporting the triangular ligament in front; the inner, separated margins of the levatores ani and the rectum and posterior half of the perineum below; and the rectum and the ejaculatory ducts behind.

THE MECHANISM OF VESICO-URETHRAL DISPLACEMENT. The displacement of the bladder and urethra resulting from prostatic enlargement depends primarily upon the relation of the portion which enlarges to the urethra and bladder. Thus the *pre-urethral portion,* situated in front and above the neck of the bladder and urethra can only cause displacement backward and downward, while the *retro-urethral* portion, situated behind and below the urethra and vesical neck results in upward displacement. While great expansion of the pre-urethral prostate might result in marked displacement, as a matter of fact the enlargement of this portion of the prostate is usually slight and the resulting downward displacement is not noticeable nor important and is entirely ignored in operative procedures, even in prostatectomy. The enlargement of the pre-urethral portion is small because of the infrequent occurrence of glandular tissue within it, and seems small in comparison with the enlargement of the portion of the prostate behind the axis of the urethra—the *retro-urethral* part—representing by far the greater portion and comprising the two lateral lobes and the posterior commissure with its so-called middle lobe.

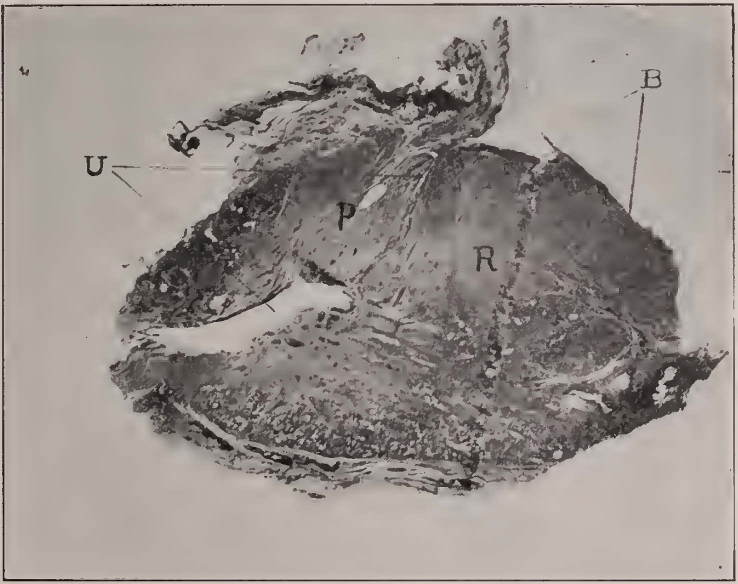

FIG. 2. (Reduced one-fifth.)

Sagittal section of an enlarged prostate, showing vesico-urethral displacement. *R.* Retro-urethral Prostate. *P.* Pre-urethral Prostate. *B.* Bladder Floor. *U.* Urethra.

The expansion of any or all of these portions, lying as they do behind the axis of the urethra and below the neck of the bladder, would result in displacement upward of the vesical neck and floor, and elongation of the prostatic urethra with elevation of its vesical end, but the form of displacement would vary as the enlargement of the middle or lateral lobes predominated. Thus in lateral lobe enlargement we would expect greater elevation of the bladder neck and distortion of the urethra, while from middle lobe enlargement greater elevation of the bladder floor.

The height of vesico-urethral elevation depends (1) on the degree of enlargement of the retro-urethral prostate and (2) the amount of resistance which the bladder and urethra exert against its expansion, in comparison with that exerted by the other surrounding structures. For greater resistance in other directions must result in greater expansion upward. If resistance was as a rule greater on all sides than above, we would expect to find expansion upward out of proportion to expansion downward and in other directions; and, when such resistance was extreme, upward expansion only with marked vesico-urethral elevation; but when resistance was light, then little expansion upward even in great enlargement. And such are the anatomical findings. We occasionally observe large prostates with marked downward and therefore but slight vesico-urethral displacement, causing no urinary obstruction. Of those which do cause marked obstruction we find a considerable number with little or no downward expansion; some small enlargements with great upward expansion; and, in the vast majority of the clinically observed cases, the downward is much less than the upward expansion. From these findings it must be inferred that, were the retro-urethral prostate free to expand downward away from the urethra and bladder, prostatic hypertrophy would never cause displacement of these organs nor interfere with the evacuation of urine; that certain adjacent structures as a rule resist expansion in all directions more than upward.

Of the structures placed in front of the retro-urethral prostate, the urethra, the anterior isthmus, the prostatic sheath, the pubic arch and the triangular ligament—with the exception of the urethra, they all offer suffcient resistance to prevent expansion forward. Of the inferior structures we have first the fibrous sheath, the natural support of the prostate; then the levator ani on each side of the rectum and below, the posterior half of the perineum. Among these it must be the prostatic sheath which offers the greatest, in fact, the only, hindrance to expansion downward, because, as a supporting ligament, it would oppose pressure from above—particularly against its lower portion where it is strongest—and since it is the only structure which can and does resist prostatic expansion laterally and behind, it must do so equally below. Opposition from the levator ani and perineum can only operate when the sheath has given way.

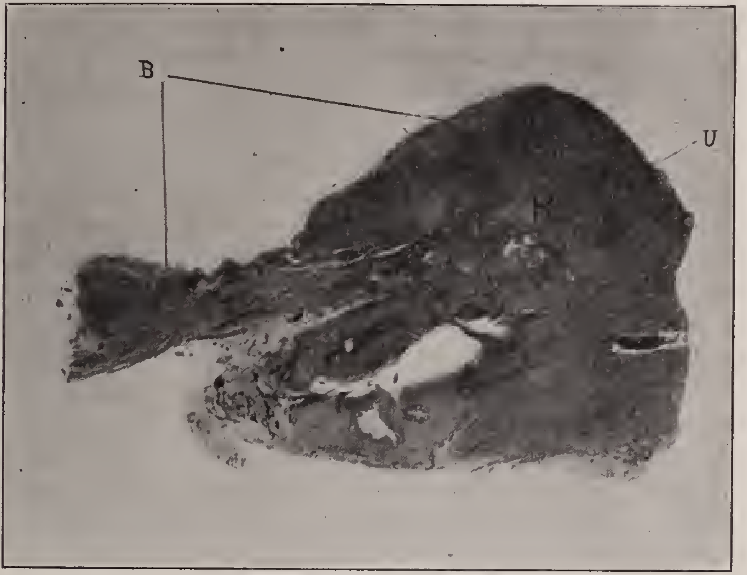

FIG. 3. (Reduced one-fifth.)
Sagittal section of enlarged retro-urethral prostate, showing elevation of vesical outlet and distortion of prostatic urethra. *R.* Retro-urethral Prostate. *B.* Bla der Floor. *U.* Urethral Floor.

The mechanism of interference with urinary evacuation through vesico-urethral elevation in prostatic hypertrophy can be attributed to several factors. (1) To inefficient bladder drainage, caused by elevation of the outlet of the urinary reservoir. (2) To incomplete emptying of the bladder through limitation of the vesical movements. Normally the bladder outlet is on a level with its floor, so that drainage is perfect. Any elevation of the outlet raises the level of drainage, thereby requiring extra force to raise up and expel the urine below that level. The movements of the bladder are complicated: first the neck and floor of the bladder sink slightly downward and forward, still further lowering the level of exit and straightening the intrapelvic urethra. At the same time the vesical sphincter dilates, followed by contraction of the bladder wall. The overgrown and encroaching prostate prevents this sinking of the outlet and renders the bladder floor rigid, inhibiting proper vesical contraction. We would expect, from elevation of the bladder outlet, residual urine offering a favorable condition for stone formation and infection; from insufficient bladder contraction, a compensatory hypertrophy of the vesical musculature and frequent micturition due to the efforts of the bladder to wholly expel its contents; and a congestion of the vesical outlet and urethra from obstruction to the efferent circulation of these parts, with a tendency to retention of urine. These results tally exactly with the signs and symptoms which we hold as characteristic of prostatic hypertrophy.

THE TREATMENT OF URINARY OBSTRUCTION DUE TO VESICO-URETHRAL ELEVATION. As was noted earlier, the logical aim of efforts to relieve the functional derangement of an organ due to its displacement should be directed toward preventing the displacement, or to correcting it sufficiently to allow the organ to functionate satisfactorily, without injury to the organ or undue risk to the patient. To prevent vesico-urethral elevation, two ways are open (1) by the prevention of prostatic hypertrophy and (2) by preventing expansion upward toward the bladder. Likewise two means are at our command to correct the elevation (1) by establishing free urinary drainage artificially and (2) by reducing the elevated bladder and urethra.

PREVENTIVE MEASURES. The prevention of hypertrophy of the prostate necessitates knowledge of the exciting causes of which we are as yet in total ignorance. The many theories which have been advanced in nearly every instance have been refuted. The Guyon-Launois hypothesis, attributing hypertrophy to arteriosclerosis of the prostatic arteries, was exploded by the results of Casper's investigations. So have the findings of Socin and Burckhardt, that hypertrophy occurs very frequently as early as the third decade, controverted the beliefs of the older writers that overgrowth was part of a senile tissue change. In like manner the claims of other ascribed causes, such as gonorrhea, congestion, et cetera, have met with strong contradictory evidence. Belfield* anticipates the discovery of the cause in a perverted testicular secretion, but it is difficult to see how this could affect the prostate. It seems more rational to look for the cause in a perverted prostatic secretion, from the chemical action of pathologic proteids, resulting from irregular metabolism or derived from disintegration of the secretion, or in the unusual action of tissue enzymes. However it may be, until the exact cause of prostatic hypertrophy is known, the possibility of preventing urinary obstruction by thwarting overgrowth of the prostate is beyond any immediate hope and our only recourse lies in diverting the direction of expansion away from the bladder.

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*Progressive Medicine, December, 1902.

The prevention of expansion of the prostate upward requires the removal of forces opposing expansion in other directions, in establishing a point of least resistance downward, forward or laterally. This is anatomically easiest of execution by relieving the inferior resisting structures thus attempting to copy those cases, sometimes seen, of great downward but with little or no upward expansion. The release of the resistance of the inferior forces is easiest because the structures representing the resistance—the prostatic sheath, the levator ani and the perineum—are the most accessible. This would be accomplished by division of the sheath and the edges of the levator ani through a perineal incision. This should permit of free expansion in a downward direction. The clinical application of such measures would be impracticable except in particularly early cases, because prostatic hypertrophy is rarely recognized until displacement of the bladder has occurred. Theoretically, the application of such a procedure in early cases is sound, requiring but simple operative trauma with conditions favorable to primary wound healing, before advancing years have lessened the recuperative powers, and before urinary infection with its grave sequelae had set in.

(To be continued.)

ETIOLOGY AND TREATMENT OF PATHOLOGIC CONDITIONS OF THE PROSTATE.*

By W. S. Durand, M. D.

EVERETT, WASH.

The pathologic conditions of the prostate depend upon the fact that one half of the prostate is gland tissue and upon the numerous openings which connect it with the urethra; e. g., the uterus masculinus, the orifices of the ejaculatory ducts and fifteen to thirty-two prostatic ducts.

Although I have taken the subject of Etiology and Treatment of Pathologic Conditions of the Prostate, I am going to dwell practically on infection as the cause, and this infection I believe to be the diplococcus gonorrheae of Neisser in the very large majority of cases.

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*Read before the Washington State Medical Association, Spokane, Wash., September 1, 2 and 3, 1903.

When an infection, such as gonorrhea, has gained access to these many openings and to the prostatic glands it becomes next to impossible to get rid of it. It is no wonder that, with an intelligent understanding of the anatomy of the urethra, prostate, and parts connected therewith, and with refined methods of diagnosis, gonorrhea has taken a place equally as serious, if not more so, than syphilis.

In Reference Hand-Book of Medical Sciences, (Vol. 6, p. 757 and 758,) under "Inflammation of the Prostate, Acute Prostatitis," it is stated, "A gonorrheal urethritis is by far the most usual exciting cause." In the same work, (Vol. 4, p. 401,) under "Posterior Urethritis," it is stated, "While this has been considered one of the complications of gonorrhea, it occurs so frequently that it may be said practically to constitute a constant symptom of the disease." This posterior urethritis would mean, of course, an inflammation of the prostate.

In an article written by L. R. G. Grandon (Annals of Surgery, Vol. 36, p. 819) "On Role of Chronic Inflammation in the Senile Bladder" he writes, "Chronic cystitis is an immediate secondary cause of vesical insufficiency. The usually remote origin of the cystitis is a persistent and sometimes latent gonorrheal infection." In the Therapeutic Gazette, (Vol. 25, p. 488) under, "When is a Gonorrhea Cured" we read, "Thorndike (Boston Med. and Surg. Journ., Feb. 7, 1901,) admits that the question, when is gonorrhea cured, cannot be answered. It will probably never be known, he thinks, when a man, whose urethra has become infected with gonorrheal inflammation ceases to be a dangerous person to those with whom he may have sexual relations. Many patients recover but there are many others who do not. Some of these latter, believing themselves well, certainly do infect their wives. Noeggarath stated in 1872, that ninety per cent. of men infected with gonorrhea infected their wives and that men infected with gonorrhea never recovered." The discovery of the gonococcus since that time does not seem to have markedly changed the force of his conclusions.

Prince A. Morrow, (New York Medical Journal and Philadelphia Medical Journal consolidated) in an article on "Gonorrhea Insontium; Especially in Relation to Marriage," (No. 26, Vol.

77, and No. 1, Vol. 78,) writes similarly as to the difficulty of curing gonorrhea and its sad sequelae.

I have quoted these various authorities as to the prevalence of posterior urethritis and prostatitis in gonorrhea and as to the difficulty of curing it because it is very strong proof for the conclusions which I shall ultimately make, in view of the fact that gonorrhea is so prevalent. Thorndike, (Boston Medical and Surgical Journal, Feb. 7, 1901) quoted by the Therapeutic Gazette says, "Most men have probably had a gonorrhea some time in their lives."

A short experience on the Pension Board, at Everett, has led me to come to the same conclusion: Many of the army men complain of kidney diseases and it is not an exaggeration to say that not one in twenty has albuminuria. They pass a turbid urine with tripper-faden, and all show an enlarged prostate on rectal examination. We know how prevalent gonorrhea is said to be among army men.

In L. R. G. Grandon's article, (Annals of Surgery, Vol. 36, p. 813) "The Pathogenesis and Pathologic Anatomy of Enlarged Prostate, from the Pathologic Laboratory of the Boston City Hospital," undertaken, as he says, "Largely with the view to investigate the conclusions of the monumental work of Ciechanowski," he quotes freely from the latter as well as others, and gives a most exhaustive list of references.

The conclusions drawn from such monumental work as Ciechanowski's and Grandon's must be given a great deal of credence, and I shall proceed to quote freely from this article. Referring to the enlargement of the middle lobe he says, (p. 818), "On section, sagitally, this lip is covered with mucosa, and immediately beneath it, and extending forward to be connected with the prostate, is always a collection of prostatic glands. They may be few in number, at times dilated, but always present. . . . . And this form of enlargement, like other forms of clinically enlarged prostate, is essentially glandular."

Under "The Glands or Acini in Enlarged Prostate," Grandon proceeds to demonstrate from Ciechanowski's, others, and his own work that the *glands* are practically always the seat of the pathologic changes in the prostate, in hypertrophic as well as atrophic conditions. For example, he writes: "When, now, atrophic prostates, that is, those below normal in weight, are studied, unexpected and ample confirmation of this simple hypothesis of an almost mechanical method of production of prostatic enlargement is found."

Grandon then gives "Conclusions on the histogensis of enlarged prostate" reached by Green and Brooks, which reaffirm the conclusions of Ciechanowski and his own throughout. Some of these are as follows:

"The so-called enlargement of the prostate, as well as certain forms of prostatic atrophy, are related histogenetically, and have a common cause. The two processes do not differ qualitatively, but only in the distribution, intensity, and localization of otherwise analogous changes.

"The enlargement of the prostate is almost exclusively due to dilatation of glands. The new formed connective tissue is relatively unimportant, and the active participation of muscle tissue in enlarged prostate in the way of true myoma (great majority of cases) is unproved and doubtful.

"If the stroma changes take place principally in the periphery and near the blind ends of the tubules, then there is atrophy of the tubules, shrinking of the connective tissue in the stroma, and atrophy of the entire prostate. This is quicker and more intense if there is no endo-glandular pathologic process.

"According to the balance of these two processes, the prostate may be of normal weight, increased or diminished.

"Atrophy and enlargement are histogenetically and probably etiologically similar."

In part three, "On the cause of enlarged prostate," Grandon writes: "One of the earliest opinions seems at the present time, as is not infrequently the case, to be the best. Disault, a follower of John Hunter, in 1813, first suggested the inflammatory origin of enlargement of the prostate, saying that it was common in those who had many attacks of gonorrhea. In another paragraph he writes: 'Syphilis, gout, rheumatism, stone, and stricture have been considered among etiologic factors, but are spoken of now only to be at once excluded, since the beginning of modern pathologic histology.'

"The bearing of arteriosclerosis, local and general, and of bladder-wall changes, we have already considered at great length, and have decided that, as a constant etiologic factor in the production of actual increase in the size of the prostate, it may be ruled out. It is seen in the enlarged prostate and in that of normal size."

Again, he says: "As a last word in this list of hypotheses it should be said that no one, so far as I can discover, still considers enlarged prostate to be a true hypertrophy."

Under the question, "Is Enlargement of the Prostate Neoplastic in Origin?" Grandon concludes thus: "It is to be concluded, therefore, that true fibro-myoma as well as true adenoma may occur, but that neither is the condition found in the usual benign senile enlargement of the prostate."

Under the question, "Is Enlargement of the Prostate Inflammatory in Origin?" Grandon writes as follows: "The best work on this question has been done by Finger and Ciechanowski and from them I shall transcribe freely." A few of his statements under this heading are as follows: "Finger concludes that the changes of chronic prostatitis are identical with those of senile enlargement. . . . . . The amount and intensity of inflammation particularly explain the late and slow onset of enlarged prostate, it being fair to conclude that the latter is always the result of an infection long latent and of such slow onset that the infection may indeed be forgotten. In both processes, described clinically as chronic prostatitis and enlarged prostate, the beginnings seem always to be in and about the glands and ducts and not near vessels; in other words, they are both ultimately of urethral and not of hematogenous origin."

"The underlying inflammation is, of course, gonorrhea. That an attack of this infection should not be remembered is, as a matter of fact, unnecessary. Patients in whom strictures are found will declare they never had gonorrhea or instrumentation. Many observers quoted by Ciechanowski have proved that gonorrhea may be primary in the prostate, and others have shown that the disease may remain in the posterior urethra for a long time, latent and quite unsuspected. Posterior urethritis is said by some to occur in 93 per cent. of cases with anterior urethritis, and in many of these cases is a definite prostatitis."

"Ciechanowski collects certain indirect facts which tend to confirm belief in the correlation of gonorrhea and the enlarged prostate.

(1) The frequency of gonorrhea.

(2) The frequency of chronic gonorrhea in the posterior urethra and prostate, i. e., in 1,070 cases the process was in the deep urethra in 424.

(3) The frequency of cystitis; and, lastly,

(4) The only domestic animal that suffers from enlarged pros-

tate is the dog; and the male dog, too, seems to be the only animal that has a true purulent urethritis which is infectious."

"Kryzysztaloxicz collected 121 strictures in ninety-nine persons, of whom sixty had suffered from long-standing gonorrhea and five still had it; ages between 40 and 60 years. Most of them first showed demonstrable signs after 50 years of age. This proves that often many years may elapse after the chronic gonorrhea before stricture appears; that gonorrheal infection, in other words, may be latent and forgotten for many years and yet be potent."

And, finally, as Ciechanowski has made perfectly clear, a characteristic of the advance of a gonorrheal process is that it is not by continuity but by jumps, and the distribution of diseased foci separately here and there over the prostate is distinctly a feature in senile enlargement.

His conclusions, "On the cause of enlarged prostate," are as follows:

"(1) The underlying cause of the usual form of prostatic enlargment and of certain forms of prostatic atrophy is a slow formation of new connective tissue, due to infection or to infection aggravating a senile degenerative process.

"(2) The gonococcus is probably most often the specific infection because (a) of its great frequency; (b) other inflammatory causes are not common in the parts in question; (c) a great similarity exists between the histology of gonorrheal processes and those seen in those senile prostates.

"(3) Neoplasms, fibromyomata, and ademona occur, but may be called rare."

Treatment. As I knew there would be other papers embracing the operative and medicinal treatment of the prostate, what I shall have to say in reference to treatment will be short and rather in the line of phophylaxis.

If it is true that the larger part of prostatic affections are due to urethritis—non-specific and specific—it behooves us to lay much more stress on the explanation of his condition to the patient when he first presents himself for treatment, and strive in every instance to eradicate the prevalent opinion "that gonorrhea is no worse than a cold." If the profession as a whole would treat gonorrhea more conscientiously and seriously, no doubt our cases of "prostatism" would be much fewer.

It is a sad fact that the average physician when consulted for gonorrhea, sits down, writes the patient two or three prescriptions, sends him away with a syringe in one hand and a bottle of medicine in the other; with the injection that, in his mind, will soonest bring the discharge down to a point where it will not be noticed or will give little or no trouble. Just as soon as the patient has reached a point where he can easily be made to believe that he is well, he is dismissed as cured. He very likely has intercourse again, ere very long, with return of discharge and believes in practically every instance that he has a new attack. It is perhaps not an exaggeration to say that not one stain in twenty cases is made at the end of treatment to determine if the man is really cured.

Not long since I had a young man, of rather good standing in the community, come to me a week after marriage with a profuse gonorrheal discharge. I said to him that it looked very much like a genuine case of gonorrhea, but he absolutely denied the possibility, saying that he had been married but a week and it could not be possible. I then made a stain and never saw gonococci more abundant. When I told the patient this, he informed me that four weeks prior to his marriage he had contracted gonorrhea, but had faithfully treated with a physician who assured and reassured him on two or three occasions, just before his marriage, that he was cured and need not be afraid to marry. This he did without making a microscopic examination of the discharge.

Perhaps the physician believed so, but it seems that literature is so abundant nowadays that even though one has not learned from experience what such advice means, in a large number of cases, he should know from his reading that it is pernicious, when the best men, e. g., Thorndike (Boston Medical and Surgical Journal, Feb. 7, 1901) recommends that a man should be continent without discharge for a period of months before marriage. It is unnecessary to mention, in this connection, that it is not only the serious effects on the man, but the baleful effects on the innocent woman.

Dr. W. F. Belfield ("Park's Surgery by American Authors," Vol. I, p. 223), after considering the subject of gonorrhea and treatment, says: "Under such treatment as has been outlined, perhaps one-third of the cases of acute gonorrhea are apparently cured in from three to six weeks; but it should be impressed upon the patient that the cessation of free discharge from the meatus does not prove that he has recovered." Notice that he does not say one-third of the cases *are* cured in from three to six weeks, but says that "*perhaps*" one-third of the cases are "*apparently*" cured.

In closing up this disquisition, I perhaps cannot say, as Dr.

MacMonagle of San Francisco said last year in Tacoma, in reference to operations on the female perineum, that when the obstetrican does his duty at the bedside "then the millennium will have come," but it may be that when urethritis, more especially gonorrheal, is dealt with by the profession as it should be, then the millennium will have in part come in "prostatism."

DISCUSSION.

Dr. Brown, of Tacoma, said the public is ignorant of the seriousness of gonorrhea. The innocent suffer as much as the guilty, as is well known to the gynecologists. Let us impart proper information to our patients. The real trouble from prostate enlargement arises from the middle lobe and residual urine. These should be the objects of treatment.

Dr. Blalock, of Walla Walla, said that the older practitioners are especially interested in these papers. He has had sad experiences in treating prostate cases. It is a pleasure to see the younger men working along these lines. Since these enlarged glands may become atrophied, he believes they can be reduced by electricity. By intraurethral, high frequency currents we can reduce the frequent urination, Enlarged prostates can thus be lessened in size and the condition made bearable. It is a painless treatment and gives immediate relief.

Dr. Smith, of Anacortes, was led to use electricity on these cases from first employing it on enlarged tonsils. By combined galvanic and farodic currents he has relieved many cases of old men.

Dr. Peterkin, of Seattle, referred to his paper of instructions as to gonorrhea, which he gives to the patient as soon as he appears for treatment, quoting abstracts from authorities, as to dangers from the disease. Massage of the prostate cures many cases of enlarged gland but the finger cannot reach the middle lobe. This can be accomplished by the electric sound.

Dr. Spellman, of Anacortes, could not see how the physician can be held responsible for uncured cases of gonorrhea. Not thirty per cent. of them come to the doctors. They go to the druggists and treat themselves.

NORTHWEST MEDICINE

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Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of Congress of March 3, 1879.

VOL. 1. NOVEMBER, 1903. NO. 11

THE BRITISH COLUMBIA MEDICAL ASSOCIATION.

While the public press of both Canada and the United States, during the past few weeks, has given evidence of discontent and grumbling on the part of the politicians over the International Boundary Question, the meeting of the British Columbia Medical Association, held at Victoria, October 30 and 31, demonstrated that the medical profession recognizes no dividing line. Its members constitute one grand brotherhood the world over, and the man who labors faithfully and conscientiously for the alleviation of suffering humanity is received and acknowledged by them regardless of his nationality. The guests from Washington were received most cordially and were made to feel that they were, for the time being. actual members of the society, by invitations to participate in the proceedings of the meeting.

While this Association is only in its infancy, the one just held being but the fourth annual meeting, it has cause to be proud of its success in every way. Although the program was not long nor the number in attendance very large, the character of the papers read and the thoroughness with which the subjects presented were discussed by the members present, made it one of the most profitable and enjoyable meetings yet held in the Pacific Northwest. The range of subjects covered the practice of both medicine and surgery, not forgetting a most earnest and eloquent plea for professional unity and brotherly love. The meeting was held in the Caucus Room of the beautiful Parliament Building, the arrangement of which added much to the good fellowship and freedom of discussion. The members were placed around an immense table so that they sat facing each other, and every one felt that he had a speaking acquaintance with all the rest. The physicians of Victoria set a splendid example to the profession in other cities where societies meet, by making the sessions of the meeting the business of most importance to them, and were faithful in their attendance.

On the evening of the first day the local society tendered a banquet to the visiting physicians at the Driard Hotel. A cozy corner was cut off from the large dining room by screens formed of large flags, which made a most pleasing and patriotic banquet hall. The spotless linen laid with shining silver and glass service, decorated with candelabra and cut flowers, was very attractive, and the menu served was such as has made that old hostelry famous. The toasts to "The King" and "The President" were drunk to the music of the national airs of "God Save the King" and "Yankee Doodle." In addition to the usual post prandial speeches the occasion was made pleasant by violin, vocal and piano solos, charmingly rendered by medical talent. One feature which the Washington visitors will not forget was the thoughtfulness of the local committee in changing the banquet to Friday evening, in order that they could be present, notwithstanding all arrangements had been completed for having it Saturday evening.

A tally-ho and four took the visitors to the Naval Hospital at Esquimalt on Saturday morning and returned by way of some of the beautiful drives along the gorges. A view of the city from a tally-ho impresses one with the fact that the physicians, together with other Victorians, know how to enjoy life. Another mark of genuine hospitality was the invitations to luncheons, teas and dinners given by the physicians in their own homes. How enjoyable it was to sip a cup of tea before a cozy fire, surrounded by a doctor's charming family. With such attentions as these the visitors returned with the knowledge that their neighbors in British Columbia are true gentlemen of the old school and most royal entertainers. Arrangements are being made for the meeting of the Canadian Medical Society to be held in Vancouver next year, and a large number from the states will no doubt avail themselves of the privilege of attending its sessions. Whoever misses the opportunity will lose much in both profit and pleasure.

THE FORMALDEHYDE AGITATION.

In view of the recent agitation concerning the use of formaldehyde in milk it may not be inopportune to make a few comments which seem to us to have some value at this time. We believe in an energetic prosecution of persons adulterating milk in any way whatsoever, whether with substances supposed to improve the appearance of poor milk as starch, gelatin, sugar, caramel, annato, turmeric, yellow coal-tar colors and even chromates, or materials to preserve milk as formaldehyde, borax, boric acid, salicylic acid, salt, sodium carbonate and saltpetre. These substances may not only be in themselves poisonous, but they deceive the public into imagining that a stale milk is fresh, because it is not sour. The only permissible mode of preserving milk is by Pasteurization and even this method can not render harmless toxins already formed in milk by microorganisms. The same may be said of the use of chemical agents. What is needed in Seattle is—in addition to cleanly handling of milk, from cow to consumer—more rapid transportation, as much of the supply for the city is not sold until it is twenty-four hours old.

A case has recently been reported of a death of a child from formaldehyde adulteration of milk. Also there have been several accounts in the newspapers of experiments bearing on this matter. The stomach of a kitten which had been fed on milk by Mr. Tanzer, containing enough formaldehyde to keep it from souring for six days, was submitted to the committee on the laboratory of the King County Medical Society for examination, but its appearance was entirely normal. According to newspaper reports, this kitten died from the effects of formaldehyde and the stomach was found much altered in appearance. No death attributed to formaldehyde in milk has thus far been known to the medical profession and, therefore, such cases should be viewed with great suspicion until absolutely verified. Dr. Charles Harrington, one of the best authorities on milk in the world, writes us that "milk containing enough formaldehyde to cause death or even acute symptoms, would probably be declined, or if taken, rejected (vomited) at once." The testing of the action of formaldehyde in milk upon kittens, to be of any value, should be tried on a number of animals and the stomachs of the kittens taking formaldehyde should be examined chemically and microscopically and carefully compared with that of a healthy kitten, fed and cared for in the same way as the other kittens, except that its milk has contained no formaldehyde. The test employed by Mr. Tanzer, of this city, differs in no material respect from that long recognized by chemists as a reliable one, but formaldehyde in milk can not be detected by any test, a few days after the addition of such amounts as would ordinarily be used as a preservative, according to the best authorities.

TYPHOID FEVER AT NORTH YAKIMA.

The State Board of Health has declared typhoid fever to be epidemic at North Yakima. It has clearly existed for several months, but has been a subject of dispute on the part of the profession, whether to diagnose it malaria or typhoid. Apparently the microscope has not been in general use for the purpose of diagnosis. It is impossible to state the number of cases with accuracy, but during September 102 were reported by five physicians. This would constitute an epidemic in a population of 6,000 without regard to unreported cases of other physicians. For the quarter ending September 30, 18 deaths were reported to the county auditor, which, in a county population of 18,000, gives a death rate per 100,000, per annum, of 400.

Late in October a committee of the State Board of Health personally investigated the situation. They examined 35 cases, all but one of whom either presented marked clinical symptoms of typhoid or gave a positive Widal reaction.

The local conditions are favorable for such an epidemic. The water supply, from the Naches river, is considered excellent and is used by 60 per cent. of the population; 35 per cent. use shallow wells for drinking water, while 5 per cent. drink from irrigating ditches. Nearly all fever cases are to be found among the latter 40 per cent.

Underneath the gravel plain, on which North Yakima is situated, is a resorvoir or "water table," the level of which is now about 10 or 12 feet beneath the ground. During irrigating months this rises to within 4 to 8 feet of the surface. This will suggest the intimate relation between wells and cesspools. Sanitary Engineer W. J. Roberts reports, "Around these open wells are the houses where fever is most prevalent. We found 23 cases of fever among users of shallow wells (in addition to those visited by members of the Board of Health). One house was said to be haunted because every family which moved into it became sick. Here we found a shallow open well at the back door, several tons of accumulated stable manure 40 feet away, a reeking privy 50 feet distant, the kitchen and household slops thrown on the ground near the well, two children sick with fever, their feces, without disinfection, buried in the stable manure. In another case, an open, shallow well supplying three families; five fever patients in one family, two in another and one in the third, about half of the eight convalescent. On the well platform stands a tub filled with dirty clothes soaking. All wash water and liquid wastes from two households are thrown within 20 feet of the well's mouth. Sixty feet away is the privy which no decent person could use, indescribable in its filth, with additions from the excreta of the sick, thrown out without disinfection, and over all swarms of flies, acting as filth-carrying scavengers." A small portion of the city is sewered, but connections are optional with the citizens. Mr. Roberts adds that those portions of the city connected with the sewers and using the city water supply, are practically without fever.

This deplorable situation is but a repetition of many similar ones of the past, the result of blind ignorance and gross carelessness. Fortunately, at this day, the remedy is simple for such a condition and should be vigorously enforced.

The State Board of Health passed some strenuous resolutions at its meeting, November 2, which should lead to a speedy removal of this state of affairs. In brief, all cases of typhoid or continued fever must be reported to the secretary of the State Board; all excreta of patients suffering from a continued fever, whether considered typhoid or not, must be properly disinfected, and means to this end are described; privies, cesspools, etc., must be cleaned and disinfected at frequent intervals; excreta, garbage and filth must not be deposited near an irrigating ditch; no ice shall be taken from a pond supplied by a ditch along which a case of typhoid has occurred. It was also recommended that all well water used for domestic purposes be boiled; that the city of North Yakima establish a proper system of garbage collection; that sewer connections be made compulsory.

As both county and city health officers have refused to accept the diagnosis of typhoid fever, and the former has refused to report to the State Board cases reported to him as typhoid by other physicians, it is not believed he can be relied upon to control and prevent the further spread of the disease. Therefore the Board recommends the appointment, as county health officer, of a physician who recognizes the true nature of the disease and the necessity of enforcing the suitable measures for its suppression.

MEDICAL NOTES.

A Municipal Laboratory in Seattle.—The Seattle Board of Health has for some time been making strenuous efforts to convince the city authorities that a chemical and bacteriological laboratory is essential for the work of the department. Attention is called to the monthly expenditures of large sums for analyses of milk, water and food, all of which will increase with the growth of the city and serve to emphasize the necessity of such a laboratory. The fact is also presented that, in all the large cities of the country, the Department of Health is considered incomplete without such an equipment. The Seattle city council has always treated this department with scant consideration, as concerns appropriations of money, and have thus far declined to establish the laboratory. The Chamber of Commerce has been interested in the project and a committee has been appointed for investigation and assistance in securing the desired object.

The Bubonic Plague in San Francisco.—Case 101 died in San Francisco, September 14, after an illness of a few days. The diagnosis was made after death, the bubo being situated in the axilla. The patient, aged 31, was an employee of the Southern Pacific R. R. Co., at San Ramon, Contra Costa Co., Cal.

The Enno Sander Prize.—This prize, a gold medal of the value of $100 for the first and a life membership in the association valued at $50 for the second prize, is offered for competition to all persons eligible to active or associate membership in the Association of Military Surgeons of the United States. The subject for the competitive essays must be on the subject, "The Relation of the Medical Department to the Health of Armies." In fixing the precedence of the essays submitted, the Board will take into consideration—primarily—originality, comprehensiveness and the practicability and utility of the opinions advanced, and—secondarily—literary character. Essays will consist of not less than ten thousand, nor more than twelve thousand words, exclusive of tables. Three type written copies of the essay must be sent to the secretary, in a sealed envelope, marked by a nom de plume, and the author's name in a separate envelope, on or before September 10, 1904. Additional information may be obtained from Secretary James Evelyn Pilcher, Carlisle, Pa.

Resolutions Concerning Tetanus.—At the twenty-ninth annual session of the Mississippi Valley Medical Association, held at Memphis, October 7-9, the following resolutions were adopted:

In view of the fact that more than 400 deaths from tetanus occurred following the Fourth of July celebration of 1903, as shown by the statistical report elaborated by Dr. S. C. Stanton, of Chicago, and published in the Journal of the American Medical Association of August 29, 1903, the great majority of which might have been prevented had proper precautions been taken: therefore

Be it Resolved, That the conclusions which follow, as offered by Dr. Stanton in a paper presented before the Association, at the above meeting, be endorsed as the sense of the Association, and further

Be it Resolved, That the Secretary be instructed to forward a copy of these resolutions and conclusions to the Medical Press, Associated Press, and the secretaries of the several State Medical Societies, with the request that they publish same and take suitable action thereon.

1. Enforcement of existing laws regarding the sale of toy pistols and other dangerous toys.
2. Enactment of laws by the nation, states and municipalities prohibiting the manufacture and sale of toy pistols, blank cartridges, dynamite canes and caps, cannon crackers, etc.
3. Open treatment of all wounds, however insignificant, in which from the nature or environment there is any risk of tetanus.
4. Immediate use of tetanus antitoxin in all cases of Fourth of July wounds, or wounds received in barnyards, gardens, or other places where tetanus infection is likely to occur.
5. As a forlorn hope, the injection of tetanus antitoxin after tetanus symptoms have appeared.

The Doctor's Recreation Series.—Under this heading will soon be issued a series of twelve books, published by the Saalfield Publishing Co., of Cleveland, O., which will be of interest to the medical profession. They will present a collection of history, biography, romance, sketches and poetry. They are written either by physicians or authors interested in medical matters and, from their titles and descriptions of contents, should serve as a desirable adjunct to the physician's library of strictly medical books. A more detailed review of the volumes will be presented at an early date.

REPORTS OF SOCIETY MEETINGS.

FOURTH ANNUAL MEETING OF THE BRITISH COLUMBIA MEDICAL ASSOCIATION.

The meeting was held at the Caucus Room of the Parliament Buildings, Victoria, October 30 and 31, 1903.

FRIDAY MORNING SESSION.

The meeting was called to order at 10 o'clock by the President, Dr. O. M. Jones, of Victoria.

The minutes of the last annual meeting held at Vancouver were read by the Secretary, Dr. C. J. Fagan, of Victoria, and approved by the Society.

Dr. O. M. Jones then delivered the annual address of the President, which was listened to with much interest. (See page 561.)

The report of the Chairman of the Committee of Arrangements for the Canadian Medical Association meeting was given by Dr. R. C. Brydone-Jack, of Vancouver, in the absence of Dr. J. S. Timstall, Chairman.

On motion of Dr. Fagan a committee of four members was elected to act with the committee of the Canadian Association in making arrangements for its next meeting at Vancouver. The committee elected was: Drs. R. E. Walker, New Westminster; O. M. Jones, Victoria; Boyle, Vancouver, and C. J. Fagan, Victoria.

Dr. R. E. Walker, of New Westminster, read a paper entitled: PULMONARY EMBOLISM.

The paper was discussed by Drs. Fraser, of Victoria; Willis, of Seattle; Ralston, of Victoria; Shannon, of Seattle; Gibbs of Victoria; Corbett, of Victoria; E. A. Hall, of Vancouver; Durand, of Everett; Jones, of Victoria, and Fagan, of Victoria.

The meeting then adjourned until 2 p. m.

FRIDAY AFTERNOON SESSION.

Dr. Ernest A. Hall, of Vancouver, read a paper entitled: DEDUCTIONS FROM THE STUDY OF PELVIC DISEASES IN THE FEMALE INSANE..

The discussion was opened by Dr. J. C. Davie, of Victoria, who was followed by Drs. Corbett, Ralston, Frank Hall, and Jones, of Victoria; Brydone-Jack, of Vancouver; Walker, of New Westminster; Willis, Shannon and Burns, of Seattle, and Durand, of Everett.

This paper brought a most interesting discussion on the question of each city providing hospital facilities for the primary treatment of cases suffering with acute insanity before they are finally committed to an insane asylum.

Dr. Fagan at this time announced that a dinner would be given by the Victoria Medical Society to the visitors at the Driard Hotel at 8 p. m.

Dr. A. P. Proctor, of Kamloops, read a paper entitled: MEDICAL ETHICS.

This paper was very ably discussed by Dr. Gibbs, of Victoria, who was followed by Drs. Ralston, of Victoria, and Burns, of Seattle.

On motion of Dr. Brydone-Jack a committee of three was appointed to consider the resolution suggested by Dr. E. A. Hall, and to report later during the meeting. The President appointed Drs. E. A. Hall, Brydone-Jack and Walker.

The meeting then adjourned until Saturday at 2 p. m.

SATURDAY AFTERNOON SESSION.

The meeting was called to order by the President, Dr. O. M. Jones.

Dr. Robert Telford, of Vancouver, read a paper entitled, PERINEAL PROSTATECTOMY.

Dr. Brydone-Jack, of Vancouver, reported THREE CASES OF PERINEAL PROSTATECTOMY, operated on by Dr. Munro and himself. These papers were discussed by Drs. Frank W. Hall and Jones, of Victoria; Durand, of Everett, and Eagleson, of Seattle.

The paper entitled SURGICAL TREATMENT OF CIRRHOSIS OF LIVER, by Dr. J. H. Hogle, was not read, owing to the absence of the author.

Dr. J. B. Eagleson, of Seattle, read a paper entitled, PATHOLOGY AND TREATMENT OF TUBERCULAR KIDNEY.

It was discussed by Drs. Corbett, Ralston and Jones, of Victoria; E. A. Hall, of Vancouver; Proctor, of Kamloops; Durand, of Everett, and Burns, of Seattle.

Dr. E. A. Bolton, of Victoria, read a paper entitled, CONTUSIONS OF ABDOMEN.

This subject was discussed by Drs. F. W. Hall and Davie, of Victoria; Brydone-Jack and E. A. Hall, of Vancouver, and Eagleson, of Seattle.

Dr. Frank W. Hall, of Victoria, read a paper entitled, ECTOPIC PREGNANCY.

This was discussed by Drs. Shannon and Burns, of Seattle; Corbett, McTavish, Helmcken, Bolton and Ralston, of Victoria; E. A. Hall, of Vancouver, and Durand, of Everett.

The committee appointed to report on Dr. Hall's resolution returned a resolution that the British Columbia Medical Society memorialize each city corporation to provide care for acute cases of mental disease in some public hospital for a period of three months, if not sooner recovered, before they are transferred to the Provincial insane asylum.

After considerable discussion it was deemed unwise to have such a resolution introduced in the Provincial Legislature at the present time, and the resolution was laid on the table for further consideration.

The following officers were elected for the ensuing year: Dr. A. P. Proctor, Kamloops, President; Dr. R. C. Boyle, Vancouver, Vice-President; Dr. W. D. Brydone-Jack, Vancouver, Secretary; Dr. J. D. Helmcken, Victoria, Treasurer.

NINTH ANNUAL MEETING OF THE IDAHO STATE MEDICAL SOCIETY,

HELD AT BOISE, OCTOBER 8TH AND 9TH, 1903.

EXECUTIVE BUSINESS.

The Governing Board convened in annual session at 10 o'clock of the morning of the 8th, in the Council Chambers, with the President, Dr. George Collister, in the chair.

The roll call was dispensed with as the register showed each member present. The President announced that he would incorporate his recommendations relating to the needs of the Society in his annual address before the General Session.

Annual Report of Council: The Council, through the Secretary, reported that no business had come before it during the year, therefore it had no report to make.

Annual Report of the Secretary-Treasurer: The annual report of the Secretary-Treasurer was read and approved.

GENERAL SESSION.

The eleventh annual meeting, general session, of the Idaho State Medical Society was called to order at 11 o'clock on the morning of the first day by the President, Dr. George Collister of Boise.

Dr. C. L. Sweet, Chairman of the Committee on Arrangements, in a few well chosen words, on behalf of the physicians of Boise, welcomed the physicians of Idaho and adjoining States to Boise and at the conclusion of his remarks announced that there would be a banquet at the Idanha Hotel on Friday evening to which all visiting physicians were invited as the guests of the Boise Medical Society.

The Society then listened to the annual address of the President, Dr. Collister, and on motion of the Secretary a Committee of three was appointed to which was referred the President's Address, with instructions to report on his recommendations. Dr. J. L. Conant, of Genesee; Dr. H. A. Castle, of Pocatello, and Dr. Taylor, of Boise, were named as this committee.

READING OF PAPERS.

PUERPERAL INFECTION: Its Origin, Prophylaxis and Treatment, by Dr. H. A. Castle, of Pocatello. Discussed by Dr. H. D. Niles, of Salt Lake City, and Dr. W. T. Williamson, of Salem, Ore.

ADENOIDS. By Dr. Adolph Blitz, of Boise. Discussion by Dr. R. L. Nourse, of Hailey; Dr. H. W. Coe, of Portland; Dr. F. E. Brown, of Council; Dr. C. P. Thomas, of Spokane; Dr. W. H. Ewin, of Union, Ore., and Dr. Blitz.

A recess was taken at 12:30, the Society reconvening at 2:30 and again taking up the reading of papers.

WHAT CAN BE DONE TO CURE CANCER, was the subject of an address read by Dr. Emory Lanphear, of St. Louis. This paper was discussed by Drs. Andrew C. Smith, of Portland; Jos. C. Bloodgood, of Baltimore; C. P. Thomas, of Spokane; Major Wood, of Boise; H. D. Niles, E. F. Root, A. C. Behle, of Salt Lake City; L. P. McCalla, of Boise; and closed by Dr. Lanphear.

Dr. Henry Waldo Coe of Portland announced that he was not prepared to read his paper on "Some of the More Common Symptoms of Spinal Cord Lesions," and at the request of Dr. Coe, Dr. W. T. Williamson, of Salem, Ore., gave the Society a very interesting talk on this subject.

THE TREATMENT OF SUMMER COMPLAINT OF CHILDREN, by Dr. B. L.

Steeves, of Weiser. Discussed by Dr. S. C. Baldwin, of Salt Lake City; Dr. W. H. Ewin, of Union, and Dr. Steeves.

The Society then adjourned to 8:00 o'clock p. m.

On reconvening at 8 o'clock, Dr. Jos. C. Bloodgood, of Baltimore, addressed the Society on DISEASES OF BONE, WITH MAGIC LANTERN DEMONSTRATION OF PATHOLOGY. This was an extremely interesting number on the program for the general practitioner as well as for the surgeon, Dr. Bloodgood making the point that amputation was not a necessary operation in new growths of bone: Benign tumors did not require amputation and malignant tumors would return or develop metastases invariably in spite of amputation.

Adjournment was then taken to meet at St. Alphonsus Hospital, Friday morning at 8:30.

SECOND DAY.

The morning was devoted to clinics at the Hospital. Dr. Lanphear, of St. Louis, demonstrated the technic of an abdominal section in country practice; Dr. C. P. Thomas, of Spokane, did a gastro-enterostomy, and Dr. Adolph Blitz, of Boise, removed some adenoids.

At 1:30 p. m. the Society resumed the reading and discussion of papers.

The first paper was by Dr. C. P. Thomas, of Spokane, on the SURGERY OF THE STOMACH, but the discussion was postponed until Dr. Root's paper could be heard.

PHYSIOLOGICAL FORCE, by Dr. I. L. Magee, of Wallace. This paper was too deep for discussion by ordinary physicians.

SOME OBSCURE LESIONS OF THE ABDOMINAL VISCERA, by Dr. W. H. Ewin, of Union, Ore., was the next paper. It was discussed by Drs. Thomas and Ewin.

REPORT OF AN INTERESTING PYLORECTOMY; ALSO A NEPHRECTOMY AND A PROSTATECTOMY, by Dr. Augustus C. Behle, of Salt Lake.

During the discussion, some interesting pathological specimens and microscopic slides from these cases were exhibited. Drs. A. C. Smith and K. A. J. Mackenzie, of Portland, and Dr. Behle took part in the discussion.

The two papers, GASTRIC ULCER, by Dr. E. F. Root, of Salt Lake City, and SURGERY OF THE STOMACH, by Dr. C. P. Thomas, of Spokane, were then read and discussed together. Those taking part in the discussion were Drs. Bloodgood, Lanphear, McCalla, Bell, Mackenzie, Niles, Thomas and Root and Jones.

SYMPATHECTOMY, by Dr. H. D. Niles, of Salt Lake City. Discussed by Drs. Mackenzie, Coe, Williamson, Thomas, Lanphear, and Niles.

TREATMENT AND PROGNOSIS OF TUBERCULAR PHTHISIS IN IDAHO, by Dr. M. M. Harshbarger, of St. Anthony. Paper discussed by Drs. Sweet, Castle and Harshbarger.

SOME COMMON DISEASES OF THE EYE, by Dr. M. A. Hughes, of Salt Lake. Discussed by Drs. Blitz, Ainslie (Portland) and Hughes.

TUMORS OF THE BREAST, by Dr. Bloodgood. The principal points of this address may be summed up in the following words:

A bloody discharge from the nipple is a positive sign of a cyst near the nipple with an intracystic papillomata, which is either malignant or will become such in 40 per cent. of cases.

Retraction of the nipple or dimpling of the skin of breast of recent occurrence indicates cancer.

In removing tumors involving nipple, it is best to always remove entire breast.

The existence of tumors in both breasts usually indicates that they are benign.

All tumors in girls under 20 are benign.

Benign tumors are encapsulated and more or less movable.

Sudden increase in growth of a benign tumor indicates a malignant condition.

Multiple tumors are rarely malignant at any age.

A single tumor after thirty is nearly always malignant and it is always safer to remove it, doing the complete (Halstead) operation wherever a suspicion of cancer exists.

Executive Session.

The following resolution was introduced and adopted by the Society:

Whereas, the physicians of Idaho are interested in the preservation of the health of the people as well as their general prosperity, be it

Resolved, that the Idaho State Medical Society takes this opportunity of expressing their continued approval of the law regulating the practice of medicine and surgery in this State, and further that this Society heartily endorses the Pure Food Law which is designed to guard the people from the injurious effects of adulterated foods, and this Society would recommend the co-operation of all intelligent citizens of the State in aiding the State Food Inspector in the performance of his duties.

The committee appointed to report on the recommendations contained in the President's Address reported as follows:

We, your committee to whom was referred the President's Address, make this report: We would recommend that the Society pass the following resolution:

Whereas, The Fraternal Order of Eagles have embodied in thei constitution an obligation to furnish medical and surgical attention to their members free of charge; and

Whereas, The order is attempting to hire physicians to undertake this duty, at the ridiculously small compensation of fifty (50 cents) cents a quarter per member; and

Whereas, No reputable physician will give his time and attention for this small pittance, therefore be it

Resolved, That it is the sense of this body that any physician accepting such a position with any fraternal or other institution paying less than a reasonable compensation, or continuing such practice after notification of the passage of these resolutions, is not a reputable physician and will not be eligible to membership or to continue membership in this Society. Be it further

Resolved, That this resolution be ordered printed and a copy sent to every member of this Society.

On motion the above resolution was adopted by the unanimous vote of the Society members present.

Report of Nominating Committee: We your committee on nominations present the following names for the respective offices of this Society for the ensuing year:

For President, Dr. J. L. Conant, Jr., of Genesee.

For Vice President, Dr. R. L. Nourse, of Hailey.

For Secretary-Treasurer, Dr. Ed. E. Maxey, of Boise.

For Chairman Committee on Legislation, Dr. I. L. Magee, of Wallace.

For Chairman Committee on Nominations, Dr. C. W. Shaff, of Lewiston.

For Delegate to American Medical Association, two years, Dr. Ed. E. Maxey, of Boise.

For Alternate Delegate, A. M. A., Dr. C. L. Gritman, Moscow.

Place of next meeting, Lewiston.

On motion the report of the committee on nominations was accepted and the officers named therein were declared duly elected, and Lewiston selected as the place for next year's meeting.

On motion the Society then adjourned.

KING COUNTY MEDICAL SOCIETY.

President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of October 5, 1903, Vice-President Heg being in the chair. Twenty members and visitors were in attendance.

Dr. Stillson read a paper on Relationship Between Diseases of the Nose and Eye, relating several striking cases in his own practice, in which blindness followed operations on the nose. He gave a careful description of the anatomical relations of the accessory, pneumatic sinuses, illustrated by boney specimens in the dry and moist state.

The paper was discussed by Drs. Perry, Smith, Greenstreet and Winslow.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of October 19, 1903, President Sweeney being in the chair Forty-eight members and visitors were in attendance.

The name of Dr. R. Edson was proposed for membership. It was voted to place the name of Dr. Weed on the roll of honorary members.

Dr. Eagleson presented an invitation from Dr. Jones, of Victoria, for the members to attend the meeting of the British Columbia Medical Society, at Victoria, October 30 and 31.

The Secretary read an invitation from Rev. J. P. D. Llwyd to attend St. Mark's Church, Sunday, October 25, to listen to an appropriate sermon, it being St. Luke's day.

PATHOLOGIC SPECIMENS.

Dr. W. T. Miles presented the following specimens with accompanying histories:

(1) The right kidney of a woman, aged 32, removed through a lumbar incision, with a history of pain over the kidney, temperature

of 102 degrees; pus in the urine, specific gravity 1020, granular, hyaline, blood and epethelial casts; only a trace of albumen. Cystoscopic examination showed pus oozing from right ureter; the left could not be found. Section of kidney shows pus in the pelvis and calices, with a round cell infiltration about all the tubules and through the parenchyma; capsule adherent at different areas.

(2) Uterus removed by vaginal hysterectomy. A diagnosis of CARCINOMA OF THE CERVIX had been made by other physicians; she was sent to hospital for an abdominal hysterectomy, but after remaining three weeks, her condition was such that it was deemed advisable not to attempt the operation and she was returned to her home in a very anemic condition. After coming under my observation, I sent her to the hospital and after a week removed the uterus per vaginam.

(3) A FIBROID UTERUS, removed by abdominal hysterectomy. It filled the whole pelvic cavity, with adhesions on every side. In order to extirpate it, it was necessary to split it down the center, removing one half at a time. She had had temperature of 101 to 102 degrees, and was bedridden. A diagnosis of typhoid fever had been made by the ship's surgeon, she having come from Nome, Alaska.

(4) OVARIAN CYSTOMATA, the large one being quite difficult of enucleation, as adhesions were dense, and it was quite low in the pelvic cavity, on the right side, behind the cervix. The second, somewhat smaller, was a right ovarian cyst, was free and easily removed. The third was a left ovarian hematoma which was ruptured in its removal. No histologic examination has been made to determine if it was an extra-uterine pregnancy or not. The three patients made good recoveries and their symptoms have disappeared.

(5) An apparently normal appendix, other than the injection of the serous peritoneum. It has no pathologic significance. A diagnosis of appendicitis was made in this case without vaginal examination, out of delicacy to the patient, a young unmarried lady. It was concurred in by a prominent surgeon called in consultation. On opening the abdomen, a great deal of grumous, green floculi filled the pelvis and the peritoneum generally was in a state of inflammation. On removal of the appendix it did not seem to justify the other conditions. The tubes being to view, were seen to be filled with pus. A gonorrheal salpingitis was no doubt the etiologic factor in this case, as a gonorrheal vaginitis developed in a few days.

(6) An appendix containing a large fecal concretion, together with pus pockets throughout its lumen. It was removed from a boy, 14 years of age, who had a previous attack of appendicitis five years ago, in Minnesota. His physicians opened the abscess, and, after six weeks in the hospital, he was discharged. He came under observation after having been pushed from a car by another boy. His temperature was 102 degrees, with great tenderness over McBurney's point. A Dover's powder that evening relieved all symptoms and next morning he was said to be better. But his pulse was more rapid, temperature higher, tenderness more acute. A consultation was held. An operation was performed at 10 p. m. Some difficulty was experienced in dissecting off the cecum and colon from the abdominal parietes, after which the appendix was located, coiled up in a mass of adhesions, gangrenous

at its extremity. It was carefully dissected out and removed. The boy made a good recovery and left the hospital in two weeks, since which he has been in active life.

(7) An appendix which was removed a few weeks ago which had not ruptured but is a large fluctuating mass, ready to do so. The usual symptoms obtained in this case; a good recovery took place in the usual time.

(8) An appendix which was removed this week. It is perforated at the distal end. As the abdomen was opened, gas with a fecal odor was noticed; no extravasation had taken place; abdomen was closed without drainage; temperature and pulse remained normal after the following day; bowels were moved twenty-four hours later.

Dr. Sharples presented a specimen of UNUNITED FRACTURE OF THE TIBIA resulting from an injury in a logging camp, the leg having been caught between two small logs, about five weeks ago. The specimen was sawed, longitudinally, through tibia and fibula.

In addition to producing the fracture of the tibia, it caused some injury of the bone of the ankle, as a result of which there developed a general breaking down of the bones, probably an osteomyelitis, extending into the lower portion of the tibia, leaving the fibula comparatively clear. The upper fragment of the tibia overlapped the lower to the extent of about one inch, as seen from the specimen, it being a rectangular fracture.

An unusual point about this bone is the fact that, upon the anterior surface of the tibia, there now exists some bony union, while upon the posterior surface there is absolutely nothing but fibrous tissue. About three inches below this break is seen another transverse fracture that is ununited.

Through the cavity of the lower fragment is to be seen a general infected condition, no doubt originating in the osteomyelitis of the ankle bones. All the diseased tissue was twice curretted out that could be found in the ankle, which seemed to do the patient no good. He suffered excruciating pain, especially at night, and seemed to be getting worse mentally and physically, all of which seemed to call for amputation.

The next specimen was one of greatly ENLARGED GALL-BLADDER. It could be grasped by the hand and be freely moved through the abdomen. The patient gave a history of severe pain, with attacks of less severity, followed by vomiting. She became jaundiced and the tumor grew larger. The jaundice was of a character to suggest carcinoma of the liver. She had progressive loss of flesh. A diagnosis was made of dilatation of the gall-bladder and an exploratory operation advised. This was done and followed by death in 24 hours. The operation revealed a very large gall-bladder containing healthy appearing bile and distension of the common duct, to the size of an average gall-bladder, and a hard mass firmly bound down at the head of the pancreas. The gall-bladder was stitched to the abdominal wall.

The autopsy showed the dilated gall-bladder, common and hepatic ducts enlarged into the liver, and slightly enlarged pancreas. Its ducts were distended so as to appear as small cysts. Below the stomach, in the gastro-colic ligament, was a mass the size of a hen's egg, containing pus. In the duodenum, at the point of entrance of the common duct, was a hard mass completely encircling the gut, with an ulcerated surface, plainly a carcinoma of the duodenum.

On opening the abdomen the stomach was found prolapsed and distended. At the operation the opening was clearly made above the pyloric end of the stomach. No ulcerations were found on the surface of the stomach.

Mr. Lebrecht Tanzer, chemist for Stewart & Holmes Drug Co., delivered an address on the subject of FORMALDEHYDE AND ITS TEST. He reviewed the history of the drug. mentioning its introduction as a preservative in milk, and foods. At first it was considered harmless, but was later condemned on account of its deleterious effects. He also described other drugs used to preserve milk, and their injurious effects on the human system.

He stated that he has been feeding three kittens on milk, containing one drop of formaldehyde to the pint, and one on pure milk. While the latter has grown and thrived, the former have had diarrhea and are wasting away.

He stated that the usual tests have failed to detect formaldehyde in sour milk and recounted the chemical changes. He then gave the formula which he has discovered, which will detect formaldehyde in minute traces. The formula was taken down by many present.

Solution No. 1 is composed of fuchsin, carbolic acid and sulphurous acid. No. 2 is pure hydrochloric acid. The addition of No. 1 to a fluid produces a red color which disappears on the addition of No. 2, except in the presence of formaldehyde. The latter, even in traces, changes the color to purple. This was demonstrated in milk. A drop of formaldehyde was added to eight ounces of water; a drop from the latter was placed in another eight ounces. The color reaction was produced in each case.

Mr. Tanzer answered numerous questions from the physicians, concerning the physiological action and chemical changes produced by the presence of formaldehyde.

Mr. H. E. Holmes referred to Mr. Tanzer's work in this line, at the laboratory of the Stewart & Holmes Drug Co. He mentioned the value of this test to the general public, emphasizing the philanthropic and scientific spirit of its discoverer in disclosing it at this time.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. HOLT, M. D.; Secretary, F. J. VAN KIRK, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in Odd Fellows' Hall, Whatcom, Wash., Monday, October 12, 1903, President Holt being in the chair.

The minutes of the last meeting were read and approved. An informal report from the Hospital Committee was received. The general subject of hospital accommodations was discussed at some length.

The program consisted of an excellent paper on ASSOCIATED DISEASES OF THE LIVER AND KIDNEY, by Dr. W. D. Kirkpatrick. General discussion followed. The meeting adjourned to meet the second Monday in November.

RECENT PROGRESS IN MEDICINE AND SURGERY.

MENTAL AND NERVOUS DISEASES.

Edited by

J. B. Loughary, M. D., G. H. Manchester, M. D.
SEATTLE. NEW WESTMINSTER.

The Pathology of Epilepsy and Other Convulsive Diseases. (By F. W. Langdon, M. D., Journal of Nervous and Mental Disease, September, 1903.) The writer discusses the pathology of convulsions in the light of the modern discoveries and theories, in the minute anatomy and physiology of the cortex. The foregoing considerations, anatomical, physiological and pathological, would appear to him to justify the following propositions as a working hypothesis:

1. That epilepsy, the choreas, and probably most convulsive disorders are the dynamical expression of an·inhibitory insufficiency; not indications of an over production of nerve energy, nor explosion due to a molecular instability, *per se*.

2. That the cause of this inhibitory insufficiency is to be sought for in the end brushes of collateral process of various cortical neurons, the situation varying with the type of the disease, whether sensory, psychic, or motor.

3. That the defect consists most probably in a *structural incompleteness* (small capacity, defective insulation, imperfect contact), or a *numerical deficiency* or both, in the collateral process of the neurons referred to.

4. Defective collaterals may favor occurence of convulsions in two ways: (a) By impairing connection with other neurons (inhibitory storage). (b) By increasing resistance to overflow currents, causing temporary over charging of motor axis cylinders.

From the points of view here taken it is quite obvious that causes of epilepsy would naturally be arranged under three heads, each of which would present important differences as regard prognosis and treatment.

1. Primary or developmental type, comprising the idiopathic cases under twenty years of age. In these the younger the subject and better the heredity and environment, the better the prognosis under intelligent treatment, ultimate results depending upon the possibility of promoting further and equable development of collateral communications with inhibitory mechanisms.

2. The accidental forms. Those due to trauma, syphilis, lead, toxines, etc., the prognosis here varying with the longer or shorter duration and the possibility of removal of the cause: being always favorable so long as permanent structural changes in collateral and inhibitory mechanism have not occurred.

3. The degenerative type. The rare cases of adult life and old age (not accidental) belonging to this category. Here palliation only is to be expected, as in degenerative changes elsewhere. In all forms the

rational indications for treatment are: To lessen the incoming sensory excitation by diet, hygiene, occupation, medicines, and so diminish the intensity of motor responses or other discharges which are not provided with suitable overflow and inhibitory mechanisms. In short, to take off pressure, favor nutrition and educate those elements that remain undamaged. LOUGHARY.

INSANITY ON THE INCREASE.—The annual report of the lunacy commissioners shows an enormous increase of madness throughout England and Wales. In 1859 the number of insane was 36,762, or a proportion of population of one in 536. There has been a steady increase from that time to the beginning of January, 1903, when the number of insane was 113,964, or one in every 293 of population.

There was never such an increase in number as in the year 1902, that over the previous year being 3,251. The number of persons who lost their minds in the year 1902 alone was 22,581, or about 500 per week. The percentage of old people who have lost their minds is as seven men to eight women.

The age at which the majority of patients are admitted to asylum life is from 25 to 44.

Lunacy is increasing more in the country than in the cities. One-fourth of all those admitted to asylums are found to have suicidal tendencies.

As causes, the list is headed by *drink*, to which 23 per cent. of males and 9.6 females is ascribed.

Heredity accounts for the greatest number of women lunatics, the proportion being the high one of 24.6 per cent. In case of men heredity accounts for 18.8 per cent. of insanity.

Previous attacks comes next, with 23.1 per cent. of women and 16.2 per cent. of men.

Unknown causes. Men came first with 17 per cent. and women follow with 15.4 per cent.

The general impression that the increase of lunacy is due to the mental wear and tear of modern life is not supported by figures, for statistics show that mental anxiety, worry and over work accounts for but 5.7 per cent. of men and 5.9 per cent. of women, while adverse circumstances, including business anxieties and pecuniary difficulties, accounts for 6.2 per cent. of men and 3.8 per cent. women. *Love affairs* is one in 200 men, and three in 200 women. According to the figures of the commission, *physical causes* rather than *mental* are responsible for the great increase in insanity. One case in three can be traced to some physical disease or disorder.

Another factor pointed out by the commission, showing the increase of insanity, is the strain of modern education, between the ages of 18 and 28.

Another cause is the fact that late marriages in the upper classes and early in the lower are more common than they were fifty years ago. Either extreme in marriage is regarded as bad for future generations.

Within the last fifty years England has become a spirit drinking nation, with no standard of purity and it is highly probable that the rawness of the cheaper whiskies is responsible for much insanity which laws for enforcing purity would prevent. For this and another great cause of increase of insanity, namely, marriage of those tainted with lunacy, Dr. E. W. White, who was recently elected president of the Medical Psychological Association, advocates state regulation and government control for the mitigation of the chief cause of insanity which is—*drink*. LOUGHARY.

RESULTS OF BRAIN SURGERY IN EPILEPSY AND CONGENTAL MENTAL DEFECTS. (By W. P. Spratling, M. D., Med. Sup't. Craig Colony for Epileptics, at Sonyea, N. Y. American Journal of Insanity, Vol. 60, p. 27. July, 1903.)

The author takes up surgical intervention in epilepsy first and his primary point is the determination of the type of epilepsy open to such measures. He lays down the general rule that "the epilepsies which most seriously impair the conscious operation of the mind are less amenable to treatment by the surgeon than those that leave the mind most largely unaffected." Therefore operations for the possible relief of epilepsy should be confined to cases of grand mal or Jacksonian and will seldom be found of any use in petit mal or psychic types. He points out that in this way 40 per cent. of all cases may be at once ruled out; not that the remaining 60 per cent. are all suitable for surgical intervention, but only amongst that percentage need we seek for such cases.

He gives the following as the results of brain surgery in thirty-three cases which came under his care, of which number there were twenty due to trauma.

In twenty-one no improvement took place.

In eight the attacks were lessened, the operation being only a part of the treatment.

In three the disease was rendered much worse.

In one apparent recovery, although the convulsions continued for five years after the operation. Although death did not figure in these results they were rather discouraging, and yet not so much so as those reported under the next heading.

RESULTS OF BRAIN SURGERY IN IDIOCY.—The author present 194 cases from the literature under two groups; the first of 111, shows the more immediate results, while the remaining eighty-three show the more permanent results. Of the first lot, nineteen, or 17 per cent. died as a consequence of the operation; twenty-five or 22.5 per cent. showed no change; ten or 9 per cent. showed slight but unsatisfactory change; twenty-four or 21.5 per cent. were improved in stated ways; thirty or 27 per cent. improvement without reports as to its character; three or 3 per cent. no reports.

Of the second lot, twenty or 24 per cent. died; fifty-four or 65 per cent. unimproved; nine or 10 per cent. improved only to the extent of being more quiet.

The practice of craniectomy for microcephalus is now generally tabooed as the belief gains ground that idiocy "is a vice of the entire organism," and "the improvement of the mental condition depends upon the improvement of the entire physical system. This cannot be done by the assistance of surgical means, for brain growth is not dependent upon stimulus from such a source, but from true physiological education—the training of the bodily powers—without which no mental improvement can be expected." MANCHESTER.

THE SYMPTOMATOLOGY AND TREATMENT OF TRAUMATIC INSANITY. (By the late A. B. Richardson, M. D., Med. Sup't. Gov't. Hospital for Insane, Washington, D. C. Amercan Journal of Insanity, Vol. 60, p. 18. July, 1903.)

The author, an eminent alienist quite recently deceased, while writing the paper of which the following is intended as an abstract, had in mind, no doubt, the fact that the friends of almost every patient committed to an asylum seek most assiduously to recall some occasion, no matter how remote, upon which he suffered from some cranial injury, regardless of its trifling nature, to which they desire to point as the sole cause of the mental trouble, rather than allow any suspicion of heredity, which they think would reflect upon themselves, to be cast upon the case by the physician. In this connection he endeavors to set forth a few facts which he has observed in dealing with such cases, and his opinion upon them in general.

He quotes Bucknill, Tuke, Kraft-Ebing, Spitzka and Brower Bannister as holding similar views with himself, namely, that "the tendency is to overestimate the effect of trauma as a cause of insanity and tc minimize the influence of predisposing causes or of other exciting causes, such as bad habits and unfavorable environment and influences." Also that a marked predisposition to mental abberration is so very frequently present in these cases as to greatly reduce the numbers offering a prospect of relief from the surgical measures so urgently advocated by the friends.

Dr. Richardson points out that the symptoms appearing in bona fide cases of traumatic insanity, so called, are quite varied and by no means point to injury as the only possible cause, in other words, traumatic insanity is marked by no distinctive symptoms.

He divides them all into two classes.

To the first class belong those that result directly from the injury. where this is the direct and sufficient exciting cause, the insanity either following immediately after the injury or being associated with symptoms developing from that date. In all such cases there is usually a reasonable proportion between the injury itself and the mental disease that follows it.

The second class embraces those in which there is no reasonable proportion between the injury or shock, either physical or mental, and the mental disorder that follows. In most of these cases a marked nervous instability is normal to the individual. MANCHESTER.

PATHOLOGY AND BACTERIOLOGY.

Edited by

R. M. STITH, M. D., SEATTLE.

R. D. WILSON, M. D., TACOMA.

SPECIAL AIDS TO THE EARLY RECOGNITION OF PULMONARY TUBERCULOSIS. (By W. L. Dunn, M. D., Am. Med., Oct. 17, 1903.) In regard to the agglutinative reaction and the tuberculin test, the writer states as follows:

Serum Test—The experiment of Arloing and Courmont would seem to justify the belief that we have a highly reliable diagnostic aid in this test. However, its proper performance requires a properly grown culture of tubercle bacilli (sine qua non), ample laboratory facilities, and an experienced worker, which would almost exclude this test as a routine measure. Furthermore, the attempts of other observers to corroborate the results of Arloing and Courmont have led to such diverse reports that, for the present, the test must be regarded as impracticable for the general practitioner.

Tuberculin Test—Following the reaction from the optimistic era in the use of tuberculin, it has been difficult to convince the profession that, as a diagnostic agent, its use was justifiable. In those cases in which the temperature curve and physical signs are sufficient for a positive diagnosis, tuberculin is unnecessary. When a suspicion of tuberculosis exists and it is impossible to establish the diagnosis by other means, the best interest of the patient demands that this test be made. The more difficult the establishment of the diagnosis, the more easily curable the case. A delay for more characteristic signs and sounds will mean a harder fight for life and is not justifiable. Regarding the reliability of their tests, our statistics are drawn largely from the veterinarians as their opportunities to perform autopsies, subsequent to the injection, have been more numerous.

Instances are recorded in which syphilitics and those afflicted with actinomycosis have responded to this test. In nearly all such cases the opportunity to prove the presence of tuberculosis by autopsy did not present itself, but some have been shown to be tubercular, e. g., Freidrich of Leipsic in 1896 reported a case of actinomycosis of the liver which reacted to tuberculin and which, at autopsy shortly afterward, showed a tubercular focus in the lung. Of 2,508 cases tested in the institute for infectious diseases, in Berlin, 371 already known to be tubercular gave a positive reaction. Of the remaining 2,137, in which the diagnosis was doubtful, 54 per cent, reacted to tuberculin; 423 of these were suspicious because of apical catarrhal pleuritis, or glandular enlargement; of these 364 reacted. Beck concluded from these cases that in every reacting case a tubercular focus is present somewhere in the body. Dunn concludes that the early cases are especially sensitive to very small doses, and that there is no other instance in medicine in which we have such immense fund of evidence in support of the reliability of a diagnostic measure. STITH.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

INTERNATIONAL CLINICS.—A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalomology, Otology, Rhininology, Larynology, Tygiene, and Other Topics of Interest to Students and Practitioners. By leading members of the medical profession throughout the world. Edited by A. O. J. Kelly. Vol. 11, Thirteenth Series, 1903. pp. 305. 24 Illustrations. 6½x9½ in. $2.00. J. B. Lippincott & Co., Philadelphia.

This is an exceptionally interesting number of this well known publication. The *piece de resistance* is a symposium upon diseases of the gall-bladder and ducts and consists of articles by Musser, Rudolph of Toronto, Stockton, Weber of London, Lejars of Paris and Deaver, covering the whole ground of causation, symptoms, diagnosis and treatment of these disorders. Considering the advances which have been made in the knowledge of the pathology and treatment of gall-stone disease, the value of contributions by masters such as write herein upon the subject, and the special interest which it has attracted of late, it is not too much to say that the present volume is worth more than is asked for these articles alone. Among other noteworthy articles may be noted The Treatment of Pneumonia by Finlay, of Aberdeen University, and the medical treatment of gastric cancer by Robin, of Paris. A valuable article is to be found by Lieut. Craig, U. S. A., Pathologist and Bacteriologist to the Army General Hospital at San Francisco, derived from studies of over 3,000 cases of malaria in which the parasites were discovered in the blood. This contribution describes the various malarial infections: their Parasitology, Symptomology, Diagnosis and Treatment in the most thorough and scientific manner.

Most practical discourses on cocain and general anesthesia are given by Bodine, of New York, and Lewis, of Kentucky. Two clinical lectures, one by Rodman, of Philadelphia, on Gastrostomy and Concussion of the Brain; and the other on Intascrotal Tumors by Belfield, of Chicago, are most instructive and interesting reading. The book closes with a refreshingly practical and well considered article on The Modern Treatment of Varicocele by Schwartz, of Paris. Altogether, as we said in the beginning, the impression which this number of the Quarterly leaves is that its usual excellence is more than surpassed in the present issue.

WINSLOW.

A DICTIONARY OF MEDICAL SCIENCE.—Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Bacteriology, Pathology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc., by Robley Dunglison, M. D., LL. D., late professor of institutes of medicine in the Jefferson Medical College of Philadelphia. New (twenty-third) edition, thoroughly revised, with the pronunciation, accentuation and derivation of the terms, by Thomas L. Stedman, A. M., M. D., member of the New York Academy of Medicine. In one magnificent imperial octavo volume of 1224 pages, with about 600 illustrations, including 85 full-page plates, mostly in colors, with thumb-letter index. Cloth, $8.00, net; leather, $9.00, net; half morocco, $9.50, net. Lea Brothers & Co., Philadelphia and New York.

Dunglison's Dictionary, which is almost seventy-five years old, and which had reached it's eleventh edition in 1854 (a copy of which is in our possession) does not need an introduction to the profession. The present work is not so very much more obese than its 1854 ancestor, but thousands of new medical terms have been added since then. Fifteen hundred new terms are included in the present twenty-third edition. This is accomplished by weeding out useless and obsolete definitions and some of the minutiae of etymology, although illustrations have been added which greatly promote the value of the work. In one way, however, the dictionary has been kept within moderate proportions by "excision of figured pronunciation in all cases except in those in which general usage is in conflict with authority regarding the value of letters, as in gynecology, for example." In this abandonment of phonetic spelling by syllables the present work loses one of the chief functions of value in a dictionary, from my point of view. The editor, Dr. Stedman, says in the preface that "the indication of the accented syllable has been thought to be a sufficient guide to the pronunciation for English-speaking persons." We are directly opposed to this conclusion, for example syn′-cope is thus written in Dunglison, whereas in another excellent dictionary we find after the word the following aid to pronunciation (sin′-ko-pe) which would prevent the common error of pronouncing the word as if the latter letter (e) were silent. If the erring person were to consult Dunglison he would receive no assistance whatever in this matter from the mere indication of the accented syllable. So another word commonly mispronounced paren′-chyma, is thus printed,—and parenchy′ matous,—which afford no clue to the pronunciation as do (par-eng′kim-ah) and (par-eng-kim′-at-us.) That phonetic spelling of a word must be considered of great value as an aid to pronunciation can not be gainsaid. In other respects the dictionary under consideration is most efficient; its definitions have an encyclopedic wealth of description and no new term escapes notice. The inclusion of definitions peculiar to veterinary medicine and dentistry, together with a thumb-index, add to the value of the work.

WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

To the Washington State Board of Health for September, 1903.

	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
Counties.	*Cases*	*Deaths*	*Cases*	*Deaths*	*Cases*	*Deaths*	*Cases*	*Deaths*
Adams	0	0	0	0	6	1	8	0
Asotin	0	0	0	0	0	0	1	0
Chehalis	0	0	1	0	1	0	3	0
Chelan	0	0	0	0	3	0	4	0
Cowlitz	0	0	5	0	0	0	1	0
Columbia	0	0	0	0	0	0	5	0
Douglas	1	0	15	0	0	0	0	0
Jefferson	0	0	0	0	0	0	1	0
King	0	0	15	0	2	0	7	0
Kitsap	0	0	0	0	0	0	2	0
Klickitat	1	0	0	0	0	0	6	1
Lewis	0	0	1	1	1	0	1	0
Lincoln	4	0	4	0	5	0	8	0
Skagit	1	0	0	0	4	0	2	0
Spokane	3	0	1	0	8	2	5	0
Stevens	12	0	2	0	0	0	2	0
Thurston	0	0	15	0	0	0	0	0
Wahkiakum	0	0	0	0	0	0	5	0
Walla Walla	3	0	2	0	0	0	11	0
Whatcom	2	0	1	0	0	0	6	0
Whitman	7	0	11	0	0	0	2	0
Yakima	0	0	4	0	5	2	39	7
Seattle (city)	1	0	8	0	1	1	13	3
Spokane (city)	7	0	15	0	2	0	13	2
Tacoma (city)	0	0	3	0	11	3	0	0
Total	42	0	103	1	49	9	145	13

An investigation of the typhoid fever conditions in Yakima county revealed a severe epidemic prevailing there; 102 cases with five deaths were reported by five physicians in September and 39 cases with seven deaths in October. This does not represent the severity of the epidemic as five or six physicians call the disease malaria and these with several others neglected to report cases. Several deaths were not reported as due to typhoid fever that undoubtdly were, the cause of death being given in the death certificate as "malarial fever" and "hemorrhage of the bowels." The health officers of the following counties failed to send reports this month: Franklin, Garfield, Island, Pacific and Skamania.

Elmer E. Heg.

MEDICAL SOCIETIES.

NAME.	MEETINGS HELD.
Washington State Medical Association	1904—Seattle
President, F. H. Coe, M. D.; Secretary, A. H. Coe, M. D.	
Chehalis County Society	Second Tuesday—Aberdeen
President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.	
King County Society	First and Third Monday—Seattle
President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.	
Pierce County Society	Second and Fourth Tuesday—Tacoma
President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.	
Skagit County Society	
President, F. B. West. M. D.; Secretary, C. C. Harbaugh, M. D.	
Snohomish County Society	First Thursday—Everett
President, W. C. Cox, M. D.; Secretary, C. B. Betts, M. D.	
Spokane County Society	First Thursday—Spokane
President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.	
Walla Walla County Society	Second Wednesday—Walla Walla
President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.	
Whatcom County Society	Second Monday—Whatcom
President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.	
Whitman County Society	Oct. 2—Tekoa
President, G. B. Wilson, M. D.; Secretary, E. Maguire, M. D.	
Yakima County Society	First Tuesday—North Yakima
President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.	
Oregon State Medical Association	1904—Portland
President, W. T. Williamson, M. D.; Secretary, L. H. Hamilton, M. D.	
City and County Medical Society of Portland	First Wednesday—Portland
President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.	
Multnomah County Medical Society	First Tuesday—Portland
President, E. M. Crockett, M. D., Secretary, L. Victoria Hampton, M .D.	
Montana State Medical Association	1904—Butte
President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.	
Silver Bow Medical Society	Second and Fourth Wednesdays—Butte
President, Donald Campbell, M. D.; Secretary, J. A. Donovan, M. D.	
Idaho State Medical Association	1904—Lewiston
President, J. L. Conant, Jr., M. D.; Secretary, E. E. Maxey, M. D.	
Northern Idaho District Medical Society	June 9—Lewiston
President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.	
Southern Idaho District Medical Society	July—Hailey
President, B. L. Steeves, M. D.; Secretary, H. A. Castle, M. D.	
British Columbia Medical Association	1904—Vancouver
President, O. M. Jones, M. D.; Secretary, W. D. Brydone-Jack, M. D.	
Vancouver Medical Society	Vancouver
President, A. P. Proctor, M. D.; Secretary, J. S. Conklin, M. D.	
New Westminster Medical Society	Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal

SEATTLE NURSES' BUREAU

If you need the services of a Graduated Nursecall on the Superintendent

MRS. A. W. HAWLEY

1115 Madison Street, or Phone John 411, and she can supply you on short notice.

Graduated Nurses' Association

NAME.	QUALIFICATION.
BEAN, MISS ALTA	Graduate Grace Hospital, Detroit.
BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L.	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M.	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
CROWL, MISS FLORENCE I.	Graduate Seattle General Hospital.
DAM, MRS. EVA L.	Graduate Seattle General Hospital.
DE VECKMON, MRS. E.	Graduate Seattle General Hospital.
FREMMING, MISS THORA H.	Graduate City and County Hospital. St. Paul.
FEEHAN, MISS ANNA	Graduate St. Joseph's Hospital. St. Paul.
GILLISPIE, MISS CORA E.	Graduate Illinois Training School for Nurses.
GREEN, MRS. ANNIE G.	Graduate Good Samaritan Hospital, Portland.
GREGG, MISS MINNIE	Graduate Women's Hospital, Syracuse, N. Y.
HUGHES, MISS M. A.	Graduate Dublin General Hospital.
HUBBS, MRS. F. H.	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E.	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
HUMPHREYS, MISS ALICE HOYD	Graduate Fabiola Hospital, Oakland, Cal.
KENNEDY, MISS	Graduate St. Luke's Hospital, Duluth; Sloan Maternity, New York.
LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B.	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W.	Graduate Royal Jubilee Hospital, Victoria.
RAY, MISS JENNIE	Graduate Seattle General Hospital.
SHROEDER, MISS H. L.	Graduate Seattle General Hospital.
SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
SLATER, MISS MAME	Graduate Eastern Illinois Hospital.
SHIACH, MISS MARY	Graduate Seattle General Hospital.
STRAHL, MISS INEZ	Graduate Asbury Hospital, Minneapolis.
STRONACH, MISS MINNIE	Graduate Brompton Hospital, London.
WAGNER, MISS IDA	Graduate Riverside Hospital, Milwaukee.
WANAMAKER, MISS NIDA	Graduate Seattle General Hospital.

NORTHWEST MEDICINE

December, 1903.

ORIGINAL CONTRIBUTIONS.

MEDICAL ETHICS.*

By A. P. Procter, M. D.

KAMLOOPS, B. C.

I chose this subject because I thought it would be of general, rather than special, interest to the profession, and because, during my limited experience in practice, the advisability of a serious consideration of this subject by us has been forcibly impressed upon me. I am sure that every member of the profession who has thought about the matter at all feels that our relationship with the general public, and with each other, leaves a great deal to be desired, and if a consideration of the subject by us will do anything to better the present condition of things, this paper will not have been written in vain.

Our Relationship to the General Public.—I think it must be confessed by the average medical man that the relationship existing between him and the general public has of late years very largely changed; that, except in some few redeeming instances, the feeling toward the profession in general, and the physician in particular, are not as kindly as they were some years ago. As a recent writer in the British Medical Journal puts it, "It used to be the rule," he says, "that the doctor was looked upon as the patient's friend, a friend indeed as one in need, and a friend trusted to a degree above almost any other. His services were considered beyond price: they were not thought of as done for pay. Even those who might have found it difficult to meet the doctor's bill did not regard the money as a quid pro quo; the bill was rather regarded as a debt of honor and settled as such. All this was justified by the attitude of the doctor. His work was done as a work of love: his best services were rendered without thought of return, and often where return was impossible. He was in truth the friend he was presumed to be, and by the public generally our profession was regarded as a peculiarly honorable one, and looked up to and spoken of as such."

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*Read before the British Columbia Medical Association, Victoria, B. C., October 30 and 31, 1903.

Now all that is changed, or at least changing. The reasons for this change in relationship have been several, one of the chief being, as the writer already quoted states, the spirit of trade which is becoming increasingly strong as the world grows older; the idea that every service has, or should have, its cash equivalent. Sentiment is being slowly but surely eliminated. The natural affection and confidence which should exist between patient and physician is being replaced by dollars and cents.

And this spirit is not confined to our own profession. We meet it everywhere. In the ministry, where at least we might have hoped that one of the most sacred relationships would have remained inviolate, we find it being destroyed by the same cash basis plan. To such a length is this spirit leading us, that we actually find men in some quarters trying to regulate their religious life on the cash basis. We all remember what a great modern writer has termed the "parasite of the pew," who has relegated his religion to this basis: "Instead of having learned to pray, the ecclesiastical parasite becomes satisfied with being prayed for. His transactions with the Eternal are effected by commission. His whole life is a prolonged indulgence to the bounties of the church, and surely, in some cases at least, he commits the crowning irony—he sends for his minister when he lies down to die."

All walks of life are being affected by it, and it is a matter of profound regret that our profession at least has not escaped; because in no walk of life, except perhaps that of the ministry, is it less possible to reduce the services rendered to the dollars and cents basis. For many of these services it is our high privilege to render no money can ever compensate; as a matter of fact, in a large part of our work the cash idea never enters, our services, in season and out of season, being given fully and freely to all, not only whether we are likely to receive what the patient may consider the cash equivalent for the service rendered but in many cases in the certainty that there never will be a cash equivalent at all. In fact, I feel that I speak for every physician when I say that the highest services we are called upon to render, the services on which we look back with the greatest pleasure, are those in which the matter of dollars and cents did not enter.

The relationship existing between patient and physician is a peculiarly intimate one. We are not only the caretakers of his bodily ills but we are often a sort of Father Confessor, in which capacity we are called upon to minister to every kind of trouble; we become the adviser and confidant, the burden bearer of many a painful and disgraceful secret which, if we are all that we ought to be, we must carry inviolate to the grave. Surely then, gentlemen, there is something in our claim that there is much in the practice of our profession that can never have a cash equivalent.

It is for these reasons that it should be a matter of deepest regret to those of us who love their profession, that the spirit of trade should be coming in to destroy so much of the almost sacred relationship existing between patient and physician. For this condition of things the general public is not entirely to blame. A good deal of it must rest upon our own shoulders. The spirit of trade has come in and affected us, and too often we give people the right to look upon us much as they do their grocer.

I know medical men who discuss glibly, at all times and in all places, how much cash they take in a month; even their wives discuss it at the afternoon tea table. The cash part of our profession is, unfortunately, for most of us a necessary, and, of course, a proper accompaniment, but surely it is not our chief end. I believe that one of the things that has done more to injure us than anything else is that the profession in some quarters is being used only as a means of making money, and we see a good deal in its practice, in some cases, that enables us to understand how the general public get this impression. It is largely because of the growing idea in the public mind that we are here solely for what there is in it, that our Medical Act is viewed with such suspicion and we ourselves are exposed to the insults of those who wish to exploit us for their own pecuniary gain.

Some few months ago I received, no doubt in common with many other medical men in the Province, one of the most insulting offers of cheap advertising from what was styled the "Christian Hospital" of Chicago. Why Christian should have been chosen for its name is hard to know. This institution offered for the sum of twenty-five dollars to place me upon the staff of the hospital. In addition I was to be supplied with an elaborate diploma, giving my various virtues and accomplishments, which, as the circular stated, judiciously hung in my office, would serve to impart confidence to the patient in a way that no ordinary diploma would. A small additional sum would entitle one to a conspicuous button to be worn on the coat to attract the public; and also a small book on "fee getting and cash taking," by which I suppose was meant, how to extract the dollars and entice patients from your brother medical men. It was the most barefaced and flagrant insult to our profession I have ever seen, and it makes us stop and wonder what we have done to give people the right to so approach us. There must be a demand for this sort of thing or there could be no supply.

With this kind of ideas of us growing in the minds of the public we cannot altogether wonder that the old established relationship between patient and physician is being destroyed and the family physician becoming a thing of the past.

Another evil which has tended to lower and commercialize the profession is the contract practice, in which, by banding themselves together, the general public has endeavored to get as much out of the physician and give him as little in return as possible. Every medical magazine has article after article on this evil, but up to the present we have applied no remedy, although the remedy is at our hands. I am told that there are medical men in our Province, giving medical attendance to members of lodges for fifteen cents per month. No wonder that the public looks upon us with suspicion; no wonder that they are losing their old fashioned respect for us. They argue, and with a good deal of truth, that it is a pretty poor thing you get for nothing.

I do not want to be understood as saying that there are not many redeeming instances of the relationship of patient and physician being all that, in the best sense, it should be, but I do mean to say that one cannot look things squarely in the face without admitting that this relationship has largely changed and is changing —for the worse.

Our Relationship to Each Other.—And how about our relationship to each other? It seems to me that it will do us no harm to look this matter also squarely in the face and enquire whether it is all that could be desired. I don't know whether we are worse here than in other parts of the Dominion, or whether Canada is worse than other countries, but I think we must confess that the strictly ethical tone of our profession here is low. There are men, of course, who are living up to the medical golden rule, but I fear there are many more who are not; and this has done a good deal to bring about the changed attitude of the general public towards us.

In our anxiety to build up a practice we have not always been careful as to how we laid the foundation. Take, for instance, the question of contract practice already referred to. This, after all, arises, as I have said, from the anxiety of these people to get medical attendance at the cheapest possible rate, irrespective of whether that rate is fair or right for the service rendered. So strong has the spirit of competition become in our ranks—the desire to get business—that some of us have been ready to take this work at almost any price.

In a small town, not very long ago, a certain lodge was being opened, whose members were desirous of obtaining medical attendance and approached three of the medical men of the town with that end in view. These men met and discussed the matter, deciding upon a rate. One of them put in a tender at the rate agreed upon; the second, hoping to get ahead of his medical brethren, put in one at a much lower rate, and the third, who had a friend at court, supplied him with a blank tender authorizing him to fill it in at the proper time for a lower amount than either of the others. This occurred within the past few weeks and in our own Province. What, I ask, Mr. President, mutual respect and confidence can exist between these medical men, and what do you think the effect will be upon a public, already somewhat skeptical of our high and lofty professions and ideals? Is there not some ground for the contention that the ethical tone of the profession in our Province is low?

In another town, not far away, the only two medical men do not speak with, or meet each other, and their history is one of absolute lack of confidence in and distrust of each other; and yet they are both nice men who might be of the greatest comfort and assistance to each other. The general public is looking on at this sort of thing and forming its own impressions.

I know another medical man who, after calmly sending to the druggist for a copy of a brother practitioner's prescription, gravely informed the patient's friends that she had been poisoned by twenty grain doses of the iodide of potash. And so I could go on, giving instance after instance of the kind of thing that is ruining our confidence in each other and humiliating us in the eyes of the public. But there is no need. We all know, right down in our hearts, that these things exist and that they ought not so to be; that, in the place of the trust and confidence which should exist between our men, there has, in too many cases, crept in a feeling of suspicion and dislike which has been all too well merited.

And yet most of these are good men who should get on well, but who, in an overanxiety to get work, have not been too careful as to the method of getting it. They have failed to grasp the principle that, whenever you belittle or injure a brother practitioner, you injure the profession as a whole. The so-called turning down of a brother practitioner, by one from whom he had the right to expect protection and help, is a thing that to me has always been incomprehensible. When one looks back over the experiences of his medical life and sees so much there to be counted as failure, it seems to me that there should be no walk of life so well calculated to keep men humble as the practice of our profession.

It is a great pleasure to know that in the midst of all this there are men among us,—the saving remnant,—who have kept themselves unspotted from the world, men in whose hands the professional reputation and honor of their medical brethren are absolutely safe, men who are incapable of doing an unprofessional thing to a brother practitioner; and the pity of it is that it should ever be otherwise.

What, then, is the remedy? Because in this lies the practical application of this paper. It was with this end in view that I brought this subject before you, to make our profession, in our own eyes and those of the public, all that it ought to be. It may be thought by some that I have spoken too plainly. I have simply tried to put matters before you as I see them, and as I believe many of us see them, and to look painful facts fairly and squarely in the face, with a view to bettering them. It is our high privilege to belong to a profession, the practice of which calls for the highest ideas of honor, and no one who is not ready to concede this has any right to enter the door. Our relationship with each other is a sacred one. To love thy neighbor as thyself applies with peculiar force to us, and contains the whole of the ethical relationship between medical men. In perhaps no other walk of life can a man, who is unfaithful to his medical brother, do the same amount of harm, both to the brother in particular and the profession in general. Together we stand for all that is best in our profession, divided we must ignominiously fall. It is our part to guard the honor and reputation of our brother practitioners as jealously as our own.

In our relationship to the public the scientific and the personal sides are inseparably blended. The physician, as Matthew Arnold puts it, sees life steadily and sees it whole." We not only use all the knowledge and skill we possess to alleviate and cure, but we are often called upon to help and strengthen when, as mere physicians, our usefulness is gone. To no other body of men are such opportunities given for leaving this world better than we found it, and perhaps it is just because so much has been entrusted to us that so much is expected. The possibilities for the exercise of brain and heart are endless. From the scientific side the old order of things is constantly changing, yielding place to new; from the personal side human nature is much the same as it ever was; the inner chamber of the affections and confidence is reached just in the same way, but only the men enter in who have earned the right to unlock the door.

In this lies the solution. In the words of Hippocrates, let us strive "with purity and holiness to pass our lives and practise our art," and, if we do this, I think the day will not be far distant when the relationship between patient and physician will be all that it was meant to be.

In closing I don't know that I can do better than point you to the exhortation of Hupeland: "Thine is a high and holy office; see that thou exercise it purely, not to thine own advancement nor for thine own honor, but for the glory of God and the good of thy neighbor."

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DISCUSSION.

Dr. Gibbs, of Victoria, presented an eloquent discussion of the subject, beginning with Adam and Eve in their lack of fidelity to each other, and traced it down to the origin of the medical code. He said that the great principle of the code is the golden rule, "Whatsoever ye would that men should do to you, do ye even so to them." It is very easy to formulate codes for our guidance, but very difficult to get men to live up to them. We have to harmonize our natures to the code. The elements of human nature have to be considered in civil law, so they have to be taken into account in moral law also.

Human nature is made up of many different elements, one or more of which are apt to predominate and thus rule the whole man, and unless this is kept under control it is liable to keep him going off at tangents. He then graphically described how the various types of one-idea medical men act toward their fellows in practice and especially during consultations. We must endeavor to make the man realize his own idiosyncrasies in order that he may truly see himself as he is seen by others. He believes that under the stress of circumstances (especially financial straits) some men are forced to do many things which they would not otherwise think of doing.

Dr. Burns, of Seattle, thought that the conditions today are so very different from what they were in practice half a century ago that it is very difficult to form a code to fit the present commercial spirit of the profession. He believed that we can only have an unwritten law of "justice to all" to guide us.

Dr. Corbett, of Victoria, said that if a man is a man he will act the man, and if he is not you can not make one out of such a being by a code of ethics or anything else.

Dr. McTavish, in reply to Dr. Gibbs' remark in regard to men pressed by circumstances, said that the young men, even though they were sometimes in need of an income from lack of practice, would endeavor to live up to the rules as well as the older ones, and would expect the older men to deal kindly with them.

Dr. Ralston, Sr., of Victoria, said that we should be very careful of our manner in the consulting room, especially about giving opinions to the family physician and not outside to the friends of the patient.

Dr. Proctor, in closing, said that his chief reason for presenting the paper was to impress upon his hearers the necessity for medical men living in the highest honor toward one another.

TUBERCULAR KIDNEY: SYMPTOMATOLOGY AND DIAGNOSIS.*

By Caspar W. Sharples, M. D.,

SEATTLE, WASH.

These two subjects are so closely allied one to the other that it strikes me as most feasible to consider the two as one.

It is a condition that of late has acquired more prominence on account of the diagnosis and the consequent treatment. Diagnosis must be considered from the standpoint of the disease itself, and also from that of the extent of the disease, that is to the other kidney and other organs, since operation for removal of one kidney would be manifestly undesirable if the opposite had a like disease, or if there were an incurable condition in some other organ of the body. The necessity of early diagnosis cannot be too strongly insisted upon if any good result is to come to the patient from operative treatment.

The first symptom that would attract our attention in a patient may be the complaint of frequent urination. This manifests itself at night as well as in the daytime. It is not a constant symptom, but may cease for a period, only to be followed by a return. Such remitting attacks should especially attract our attention. This condition may also be associated with dysuria. The quantity passed in twenty-four hours often is increased, but in later stages of the disease it would be expected to be lessened.

I had a patient at one time with coxalgia who was confined to his bed, but would urinate very often, passing pus and occasionally a small quantity a blood, but the most unusual symptom was that of passing small uric acid calculi quite often, probably a half dozen times a year, causing for a time some confusion in the diagnosis as to the exact renal condition. However, later he developed anuria, and died, when both kidneys were found to be extensively tubercular, one being only a collection of pus sacs and the other quite full of tubercular deposits. No stains were made of the urinary sediment.

In other cases the first symptom referred to may be pains in the loins. This should lead us to be more careful in diagnostic matters, for we all know that "lumbago" is too apt to be the diagnosis when a patient comes complaining of a pain in his back. This pain is not very severe, but is constant and not influenced by motion. Acute attacks of pain may be observed, accompanied with vomiting. The pains may all be located in one loin, or be referred to the pelvis. Attacks of pain may resemble, or in fact may be, true attacks of renal colic caused by tubercular masses passing down and blocking the ureter. The ordinary pains in the kidneys may be much increased by pressure.

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*Read before the King County Medical Society, Seattle, Wash., June 1, 1903.

Pus in the urine is very common at some stages of the disease, and is of a dirty gray color, while the urine containing it fails to give forth that foul sickening odor that sométimes comes from chronic cystitis. Pus may fail to be found in the early stages of the disease for tubercle bacilli are not pus producers. When the process reaches the calicyes of the kidneys pus is to be expected. Mixed with it are oftentimes found phosphatic deposits.

One particular point in this class of cases is that the urine is as a rule acid in reaction, though of course there are exceptions, depending upon conditions other than tuberculosis of the kidney itself. If it be an ascending form of tubercular disease, pus should be found before the disease reaches the kidneys.

The presence of pus may be intermittent, depending upon temporary obstruction of the ureter, the pus then accumulating to form a pyonephrosis, or depending upon an abscess that discharges itself for a time and then ceases, only to be followed by a reopening of that or a discharge from a second or third one.

Blood in the urine and blood in acid urine may also be one of the first symptoms. The amount of blood varies from a few corpuscles found with the microscope to an extensive hemorrhage. The length of time that the hemorrhage lasts may vary from a few minutes to months, and may be enough to endanger life. The amount of hemorrhage does not indicate the extent of the disease, as excessive hemorrhages have come in the early stages. The presence of blood is no indication as to the character of the infection of the kidney, that is, if it be a miliary or an ordinary infection.

Not long ago I had a case of a young woman whose only symptom was a large quantity of blood in the urine, lasting for various periods, with severe pains in the right kidney and down the course of the ureter. There was at first no pus and later on a moderate quantity. Operation for removal of the kidney showed the organ to be studded with miliary tubercles.

Albumin and casts of various types are quite often found in the urine. Gastro-intestinal symptoms such as nausea, vomiting, indigestion, etc., are of moderately frequent occurrence. Examination of the affected side by palpation may show a marked enlargement of the kidney or no appreciable increase in size. The swelling depends on various causes. If a stoppage of the ureter occurs we may get a hydronephrosis or pyonephrosis.

The formation of an enlarged kidney in the side may be and usually is gradual. The general shape of the kidney may be retained or some tubercular collections may form an abscess, projecting from the surface of the kidney, either forward or backward. The swelling may be such that no resemblance could be had to the original organ. The enlarged organ may be painless, though usually it is tender upon pressure. Enlargements are events of the middle and last stages.

Then there are the general symptoms of loss of flesh, loss of appetite, loss of strength, loss of color, etc., such as occur in every wasting disease. During the last stages chills, fever and sweats are common. Death may depend upon uremia from destruction of the kidney tissue and especially when both organs are involved.

The use of tuberculin was at one time considered a feasible test for this condition, but I believe this procedure is generally condemned so far as its application to human beings is concerned.

The presence of tubercle bacilli in the urine is now considered to be a positive proof of tuberculosis in some parts of the genito-urinary tract. However, it should be recalled that people with general tuberculosis may have bacilli in the urine without any disease of the kidneys. Dr. Morris quotes Tilden Brown to say that the best time to find the bacilli is just after a hemorrhage. They are not always easily found, and inoculation experiments, using the urinary sediment, may be necessary to demonstrate the disease. The specimens of urine should be centrifuged and the cheesy particles should contain the bacilli, which usually occur in groups of a large number, somewhat smaller, if anything, than those found in sputum. The fact that bacilli are not found in the first stain made is no proof of their absence, but many specimens should be examined before this test is abandoned.

Smegma bacilli, on account of their resemblance to tubercular bacilli, remain to be excluded, and this is done by a stain in which the decolorization is accomplished with nitric acid, and also by a reaction of the grouping which is seen with tubercle bacilli. After the demonstration of tubercle bacilli in the urine it still remains to be seen if the tubercular process is located in the bladder, ureter or kidney. It should also be remembered that there is a possibility of bacilli being found in the urine from disease of the seminal vesicles or tubercular abscess of the prostate discharging into the urethra. The two latter conditions, as well as the possible contamination of the sample by smegma bacilli, can be avoided by careful washing of the canal and subsequent catheterization.

Cystoscopic examinations should be made to discover the condition of the bladder wall. Meyer points out in the Medical News for 1896 that there was a very peculiar change in the bladder wall in cases of tubercular kidney. This change consisted in small hyperemic spots surrounding the orifice of ureter, leading from the diseased kidney, while all the rest of the bladder wall remained clear. To demonstrate still farther the relationship between these two conditions he examined a case after removal of the diseased organ and found that those hyperemic spots had disappeared.

Lastly, and the most positive of all methods in diagnosis and differentiation, is the matter of catheterization of the ureters or the use of the segregator and an examination of the samples so obtained as to amount, specific gravity, contents and especially bacilli, but even this may lead us astray since both organs may be tubercular and only one giving out bacilli at that time.

Observations that I made in a case of miliary tubercular kidney, before spoken of, showed that the kidney affected secreted a larger quantity of urine and of a trifle lower specific gravity than came from the other side. This observation was not of much value since no opportunity was given to make an autopsy and consequently the condition of the remaining kidney is not known.

Everything must be taken together to make a diagnosis of this condition, and too much stress not laid upon any particular point. Pain and tenderness over either organ associated with bacilli should be enough to warrant a diagnosis. But we all know of the possible errors that may creep in on account of the pain being referred to the opposite kidney. Unless there are marked general symptoms or some enlargement it hardly seems to be possible to make a diagnosis of the extent of the disease in the kidney, as is proven often after operation when more or less than was expected is found to exist.

TUBERCULAR KIDNEY: PATHOLOGY AND TREATMENT.*

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In discussing the subject of renal tuberculosis in the light of modern pathology we, of course, admit in the beginning that the cause is in every case due to the invasion of the renal tissue by the tubercle bacillus. This has been made clear to us by the discoveries of Klebs and Koch of the tubercle bacillus in the diseased tissues, and its presence in the urine, by Cohnheim. From a surgical point of view it is of the greatest importance to study each individual case, in regard to whether the kidney lesion is primary and unilateral or but a manifestation of a general tuberculosis.

In but a small percentage of the cases is the disease confined to the kidney, and in a much smaller number is it found in one kidney only. According to Albarran, there are only five cases of primary unilateral tuberculosis of the kidney on record, but Morris reports that, in 3,331 cases from the post mortem records of the Middlesex hospital, there were only ten out of seventy-four in which the condition was limited to the kidney, while there were sixty-four in which the tuberculous deposit was a part of a general infection. Garceau, of Boston, in a recent article, takes a still more conservative view of the primary lesion in the kidney, and reports that "in the twenty-four cases of caseous tuberculosis of the kidney occurring in 3,424 autopsies at the Boston City Hospital and the Massachusetts General Hospital during the past ten years, not once was the kidney found to be the only organ affected."

In many cases the disease in other organs is latent, such as retroperitoneal and mediastinal lymph glands, or old foci in the prostate, testicle, lungs or some joint. It is possible that some of the lesions in other organs are secondary to that of the kidney, but this point possibly can never be satisfactorily determined.

Authorities differ widely as to the relative frequency of the disease in one or both kidneys. According to Dickinson, both kidneys are involved in one-half of the cases, while in the other half it is unilateral. Morris found, in nine of the ten cases, that the disease was limited to one kidney. Fischer records that both were affected in seventeen cases and one kidney only in twenty-eight cases. Albarran states that in twenty-one out of thirty-two specimens of renal tuberculosis preserved in the Musee Guyon, in only one was a single kidney affected.

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*Read before the British Columbia Medical Association, Victoria, B. C., October 30 and 31, 1903.

Notwithstanding the doubtful outlook indicated by the findings of the autopsy room, the late results in many cases of nephrectomy have proved that, if the tubercular disease was not limited to the kidney removed, any other manifestations of the disease have given no trouble, since the patients have enjoyed good health for many years after the operation.

Renal tuberculosis is most frequent in the young and in middle life. The miliary form predominates in childhood and the caseating in adults. Authorities differ as to the relative frequency of the disease in males and females.

The renal tissue may be invaded by the tubercle bacillus by way of the blood vessels, the lymph channels, the urinary channels, by contiguity from neighboring affected organs and occasionally from caries of the spine. Douglas states that Baumgarten, after much experimental work, asserts that the kidney is never infected from the bladder by way of the ureter. When the kidney has been infected from the blood, miliary tubercles are found in the corticle substance, or the caseous nodules are older and larger about the bases of the pyramids than at the apices. There may be little or no extension of the diseased process into the pelvis or the ureter. On the other hand, when the disease is of the ascending type the ureter and pelvis are thickened, indurated and perhaps ulcerated, with a quantity of cheesy material in their walls or in their lumina. The calyces show these changes also. The connective tissue and urinary tubules become invaded from below, upwards and the breaking-down process of the tissues spreads upwards along the pyramids from apices to bases, till large cavities are formed in the kidney which communicate with the pelvis by wide openings. The ascending tubercular ureteritis may cause an obstruction of the ureter and thus produce a tubercular hydronephrosis.

In examining the kidney during an operation or post-mortem it is not always easy to be positive that the lesions are tuberculous, especially if they are small in size, or if suppuration has occurred and altered the character of the initial focus of the disease.

Acute miliary tuberculosis, which occurs most frequently in children, is usually a manifestation of a general disease. The infection is brought to the kidney by the blood stream and the tubercles tend to form along the lines of the arterioles. They are scattered throughout the substance of the organ, usually first in the cortex and on the surface, where they may sometimes be seen beneath the capsule, and later they spread through the kidney and downwards into the ureter and bladder, sometimes affecting the prostate, seminal vesicles and testes. On section of the kidney they may be seen as small whitish or yellowish spots. This form usually gives no symptoms by which the renal infection can be diagnosed until late in the disease.

The caseating form is characterized by the presence of greyish or yellowish cheesy nodules scattered throughout the substance of the kidney which is usually enlarged and somewhat nodulated, or it may even become lobulated by the extension of the cheesy infiltration into the cortex. These cheesy nodules tend to become larger and to open into the renal pelvis and discharge through the ureter into the bladder, or they may extend out under the capsule and even break through this covering to form a perinephritic abscess. These caseous cavities are filled with necrotic tubercular tissue surrounded by areas of tubercles.

In about ninety-five per cent. of the cases these cavities break into the pelvis and discharge their contents into the ureter, thus causing the presence of pus, tubercular tissue and occasionally bacilli in the urine. It is possible for the cavities to break in both directions, thus forming a fistula through the substance of the kidney. Guiteras states that he has found this condition in a number of cases, so that, when the perinephritic abscess was opened, the finger could be passed through the kidney into the pelvis and ureter. When the capsule has ruptured the tubercular process may extend to the liver, spleen, or other neighboring organs. Frequently these cavities open into one another until the whole kidney is formed into a large abscess sac, which sometimes resembles a cyst.

Occlusion of the ureter may occur and produce a condition of tubercular hydronephrosis, but a pyelonephritis, with some distension of the renal pelvis, is more common. Suppurative processes are due to a mixed infection with pyogenic germs, usually the staphylococcus, the colon bacillus, or the streptococcus. These secondary infections may occur through the circulation or ascend through the ureter.

According to Morris, the tuberculous and pyogenic infections react on one another unfavorably to the patient. The clinical course of the tubercle is rendered more acute, and on the other hand, the lesions caused by the pyogenic infections are more serious and persistent than in ordinary cases of suppuration.

Various conditions may be found associated with those of renal tuberculosis, as calculi or new renal growths, and the perinephritic tissues may be the seat of sclerosed, suppurative or lipomatous changes, while the lymph nodes of the hilum may participate in the tubercular process. The bladder may be the seat of tuberculosis both before and after infection of the kidney.

Prognosis.—Just a word in regard to the prognosis. It is most unfavorable in all cases unless the disease is strictly localized and diagnosed early enough to be radically removed. In the acute miliary form, accompanied by general infection, the course is of short duration. The infiltrating caseous form, however, is more chronic, much more so than is often supposed. I have had a case of bladder tuberculosis under observation which is secondary to an old hip joint lesion in childhood, and which has given the patient much trouble for the past ten years without affecting his general health. He has, in fact, gained much in weight during the past three or four years. The duration of an ordinary case is about three years after the development of well marked symptoms and, if untreated, the patient usually dies of cachexia or uremia. Its course is hastened by the supervention of pyogenic infection, and occasionally by profuse hemorrhage. The occurrence of pyleonephritis is a very grave complication. In very rare cases the disease may subside either by the tuberculous material undergoing cretification or by the whole kidney atrophying, owing to a complete occlusion of the ureter.

The prognosis of surgical treatment has shown a very marked improvement during the last ten years, owing to more accurate methods of diagnosis and better operative technic. This is well shown in the recent article of Garceau in which he compiles 415 cases operated upon. Facklam's list of 88, reported in 1893, showed but seven cases alive at the end of two years after the operation. Bang's list of 135, reported in 1898, gives but ten cases cured at the end of two years. In the author's collection of 194 cases forty-one were still well after two years.

Treatment.—The treatment of a case of renal tuberculosis should be carried out on the same general principles as those which govern that of any tubercular lesion. The first consideration is to build up the general nutrition of the patient, giving him plenty of good nourishing food, taking care to correct the assimilation whenever possible. The supply of fatty articles of diet such as cream, butter and animal fats should be liberal, being supplemented, if thought advisable, by cod-liver oil and maltine. The patient must have an abundance of fresh air, leading an outdoor life as nearly as the circumstances of the case will permit. All kidney irritants should be excluded. Creosote, guiacol and hypophosphites are recommended as internal remedies. A change of climate or a sea voyage is frequently of great benefit. These general measures are all that can be safely taken in cases when tubercular infection of the kidney is but a part of a general tuberculosis or the other kidney is not in a healthy condition. Wyss claims that pulmonary tuberculosis has better chances of recovery when a secondary lesion of the kidney is removed.

If, after a very careful eliminating diagnosis, the conclusion is reached that the tubercular process is confined to the kidney under consideration, or at least there is no active tubercular lesion in any of the other organs, and that the other kidney is functionating reasonably well, surgical interference should be advised.

The operation of election is nephrectomy, since the local infection is thus completely removed. This operation, to be successful alone, must be done early before the disease has extended into the ureter or adjoining tissues. The failure of so many primary nephrectomies to effect a complete cure is very frequently due to the fact that the infected ureter has been left behind. This tube should always be carefully examined and as much of it as is diseased should be removed, if the conditions existing in the case permit of its being done. Its removal in the male, down close to the bladder, is usually not very difficult, but in the female it is seldom possible to trace it below the brim of the pelvis. Noble reports a case in which he removed the kidney and ureter in one piece by the extra-peritoneo-vaginal method.

In case the opposite kidney is also involved or the abscess cavity is very large it may be best to perform a preliminary nephrotomy. In this operation the abscess cavity should be thoroughly opened, and all the pockets emptied and, if possible, the cavities curetted. Free drainage by gauze or tubing should be instituted.

Morris looks upon this operation as merely palliative and its results as very uncertain. The percentage of cures is very much lower than that from nephrectomy. Garceau, on the other hand, states that in nephrotomy followed by nephrectomy, we have an operation which offers the greatest encouragement. In forty-seven such cases there were but five deaths, a mortality of only 11.9 per cent., much better than in the case of nephrectomy alone, which gave a mortality of 17.4 per cent. According to the same author's collection the permanent cures after nephrotomy, followed by nephrectomy, is 25.4 per cent., as compared with 13.8 per cent. after nephrectomy alone.

In cases where the disease is limited in extent and localized to a small part of the kidney a resection of the diseased portion promises a good result. The advantage of this operation is that a considerable amount of secreting tissue still remains and also that the whole urinary excretion is not suddenly thrown on the other kidney which may be diseased also. Morris reports a remarkable case in which he removed one-third of the second kidney for tubercular disease, the other having previously been removed for the same cause. Four years after the second operation the patient was strong and active. Albarran, Konig and Pels-Leusden all condemn this operation, however. They claim, as a result of their pathological studies upon a large number of kidneys, that in not one of them was the renal parenchyma such as to have warranted a resection. The pelvis was particularly diseased, which could not be affected by the resection.

Of course, no set rule can be established for the renal operations. Each and every case must be studied under the eye and touch of the operator, who should be conversant with the various operations and do that which, in his judgment, will produce the very best results for the patient.

The after treatment of patients who have passed through an operation for tubercular kidney is very important. In the main, it should be that followed after any abdominal operation. The danger of suppression is to be foreseen and prevented as much as possible by all the means at our command. They include the administration of fluids, hot water, milk and alkaline mineral waters, saline infusions, enemas, etc. The bladder should be frequently evacuated by catheter if necessary. An abdominal binder or belt should be worn for some time after the patient is able to get around, particularly if the incision has been a large one.

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THE SURGICAL PROBLEM IN PROSTATIC HYPERTROPHY.

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(*Concluded.*)

Corrective Measures.

(1) By Establishing Artificial Urinary Drainage. Long ago the importance of relieving urinary obstructions in prostatic enlargement and giving free exit to the retained urine was recognized and, before surgery had come to the point of attacking the obstructing prostate, the bladder was drained artificially by suprapubic cystotomy and through the perineum. In modern times, except in extreme cases, these procedures have been abandoned because, in affording relief, they create another condition almost as bad. E. Goldman has recently advanced a new method of artificial drainage which leaves the elevated bladder outlet and floor undisturbed, but attempts to raise the fundus of the bladder. Observing that urinary evacuation invariably improved in those prostatics upon whom suprapubic puncture had been done for retention, and concluding that this was due to elevation of the fundus from adhesions, he proposed a"*ventrofixatio vesicae*" which he has performed with some success. The mechanical principle of this procedure is correct. To raise the body of the bladder to the level of the elevated outlet would induce thorough drainage, but, to do so in a collapsable organ like the bladder weighted down with accumulating urine, by dragigng up its apex and attaching it to the abdominal wall, is impossible except in such a limited degree that could only afford moderate relief, varying with the amount of elevation of the outlet. Even were it possible to satisfactorily suspend the fundus of the bladder, the operation could never prove so successful in its results as one which reduces the vesical elevation and brings about normal urinary drainage.

(2) The Reduction of Vesico-Urethral Elevation. This is the only logical plan both anatomically and mechanically for the correction of this condition. By reducing the elevated neck and floor of the bladder we would expect to obliterate the retroprostatic pouch, and to establish normal urinary drainage by straightening the intrapelvic urethra and by bringing the level of the exit of the urinary reservoir down to its lowest point. As a result, we would expect complete evacuation at micturition with

no residual urine; relief of muscular overstrain in the effort to overcome obstruction with cessation of vesical hypertrophy; and conditions favorable to either preventing or curing urinary infection since the infection soil—the residual urine—is removed. The remote effects of obstruction and infection, hypertrophy of the bladder, et cetera, are beyond aid, though they may be prevented. To reduce the vesical elevation has been the real, if not the conscious aim of almost all operative measures, new and old, but from the beginning the high mortality* has hindered all but the bold or enthusiastic, and has caused a strong prejudice in the minds of all conservative surgeons, despite the improved technique of prostatectomy and allied procedures. The reason of such mortality has been thoroughly understood: the advanced age of the subjects when renal insufficiency and arteriosclerosis are almost certain, and when resistance to operative shock, to infection and to hemorrhage is lowered; and when the ureters and kidneys are often infected.

From radical methods surgery turned to moderate ones in the hope of evolving an operation which would be both effectively curative and safe. From failure in these temperate procedures, because of the hopelessness of their ever proving successful and even because of their surprising mortality, the tide has again turned to radical measures in the endeavor to lessen the dangers by improvements in technique. For the operative relief of urinary obstruction in prostatic hypertrophy will never serve its true purpose until it can be applied easily and safely in early cases before urinary infection, catheter-life, retention, and reduced vitality of advancing age have set in—before urinary obstruction has wreaked its full harm. Until it has reached such a stage of perfection that it can be universally applied to incipient cases and thus prevent the grave consequences of obstruction and infection, operative pro-

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*SOCIN AND BURCKHARDT'S TABLE.

Operation.	Author.	No. Cases.	Improvement of complications and great improvement of function	Noticeable Improvement	No. Relief	Deaths
Castration;	E. Burckhardt	210	69(32.8%)	64(30.4%)	43(20.4%)	34(16.2%)
Vasectomy;	"	252	62(24.6%)	87(34.5%)	82(32.5%)	21(8.3%)
Angioneurectory	"	18	(5.5%)	(77.8%)	(11.1%)	(5.5%)
Bottini;	Freudenberg	690	no mention	597(86.5%)	57(7.8%)	39(5.6%)
Suprapubic. Prostatectomy;	Burckhardt	77	11	20	24	16
Perineal. Prostatectomy;	Burckhardt	53	no mention	(60.1%)	(28.9%)	(12.2%)

cedure must be one of last resort, justifiable only in selected cases and in the hands of the skilled, and not before then will it have any place among the standard and elective operations.

To reduce any elevation requires the release of forces maintaining it and the greater the height the more extensive must be the removal of these forces. While there may be many ways of reducing an elevation, the one which is simplest, safest and yet effective must hold, especially when injury to the elevated structure is to be avoided and the necessary damage minimized. The forces maintaining vesico-urethral elevation are represented by the structures situated beneath it. Of these, first comes the retro-urethral prostatic mass and, immediately enclosing this below, the strong, supporting prostatic sheath or ligament. These two structures represent the chief support of the elevated urinary organs. Below them we have the separated levatores ani with the rectum between, and the posterior half of the perineum, filled in by the recto-urethral muscle, with the fascia and skin externally. With but few exceptions, the great variety of operations now in vogue attempt vesical reduction by directly and indirectly releasing the *prostatic support,* through shrinkage of the *retro-urethral prostatic mass* or through removal of it.

Operations for Shrinkage of the Prostate. Theoretically, reduction by prostatic shrinkage would be ideal, could it be made extensive enough to bring about complete reduction without great injury and risk. The operations having this end in view include the so-called sexual operations (castration, vasectomy, angioneurectomy, et cetera) and Bottini's galvanoprostatotomy with its numerous modifications. The sexual operations are based on the fact that, empirically, some prostates do shrink, and that, experimentally, atrophy of the glandular tissue of the prostate results. The degree of shrinking must vary with the proportion of glandular tissue in the hypertrophied organ. In pure adenomata, which are rare, we would expect complete diminution in size, but in the large majority, where considerable increase in the fibro-muscular tissue exists, only such slight decrease in size as would but slightly influence the elevated bladder. That such is the case is substantiated by the small percentage of cures and the large proportion of "improvements" recorded. Even were the resulting atrophy greater, the operative risk is by no means small. The sexual operations must soon find an early abandonment.

The Bottini principle relies on shrinkage by the actual destruction of a certain amount of prostatic tissue and by the resulting contraction of the scar tissue. It attacks the uppermost portion of the retro-urethral prostate, the so-called obstructing mass. It does diminish the size of the protruding mass, but only to a degree, and cannot do so thoroughly without extensive destruction. As would be expected, it results in improvements varying with the amount of the vesical elevation. Beside its failure in causing effective reduction, it necessitates injury to the bladder which sometimes extends to other structures, as the ureter and rectum, and even under improved methods of application it is unsurgical and productive of no small death rate.

These many and varied operations, attempting the removal of the obstruction, or, more accurately, the reduction of the vesical elevation by shrinkage of the retro-urethral prostate, represent the conservative digressions of surgery in reaction from radical measures. While curative, if they could decrease the prostate to nor-

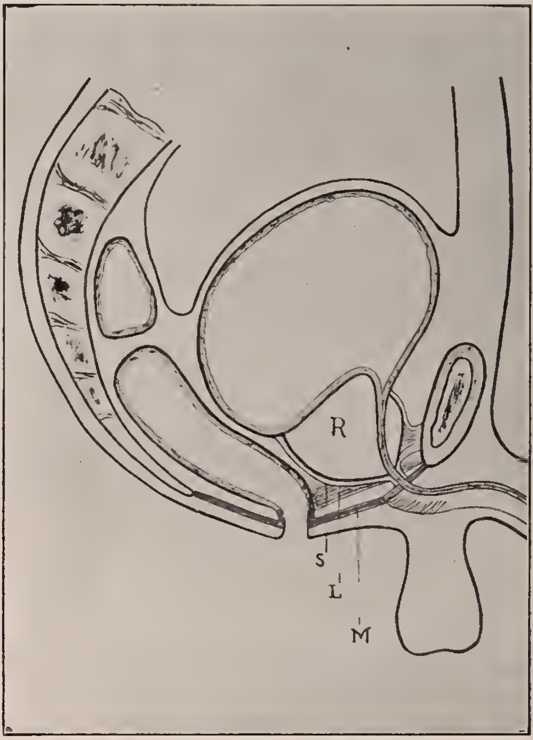

FIG. 4.

Diagrammatic sagittal section of male pelvis, showing vesico urethral elevation due to enlargement of the prostate, and the structures supporting the elevation. *R.* Enlarged Surgical Prostate. *S.* Prostatic Sheath. *L.* Levator Ani. *M.* Rerto-Urethral Muscle.

mal, the actual decrease is invariably so slight that they can never avail of more than uncertain and unsatisfactory improvement. It is this "improvement" which has encouraged continuance of these procedures, but to produce uniform and complete reduction appears anatomically impossible.

OPERATIONS FOR THE REMOVAL OF THE RETRO-URETHRAL OR SURGICAL PROSTATE. Several methods have been devised to this end and are classified according to the route by which exposure of the prostate is obtained, into the median and lateral perineal prostatectomy, combined suprapubic and perineal, suprapublic, and rectal. The first three execute removal through the perineum, while the latter approach through adjacent viscera; the suprapublic requiring two incisions in the bladder before the prostate is reached. Each method removes by excision or enucleation the obstructing mass, the retro-urethral prostate. The remote and harmless pre-urethral prostate is untouched. The principle upon which prostatectomy is curative is radical in the extreme. It not only accomplishes, but exceeds the requirements. The elevated floor and neck of the bladder only require reduction to their normal level. Prostatectomy does this and more. It removes the support which the prostate and its sheath naturally furnish to the neck of the bladder. The operations for the removal of the prostate succeed where the conservative ones fail in that they effectively reduce the elevation, but, whereas the latter are attended with comparatively little risk, prostatectomy is notoriously a grave operation. It is undeniably true that the technique has greatly improved, especially the perineal operation performed by Albarran and the French school, and Young of Baltimore, and that the mortality has been reduced in the hands of a few in selected cases. Yet prostatectomy has not been sufficiently shorn of its dangers to qualify its general application as some claim. Moreover, the injury to the bladder and urethra is not infrequently permanent.

Enucleation of the surgical prostate is practically impossible without damage to the urethra and neck of the bladder and permanency of this condition is far more common than supposed. Incontinence and loss of urinary control is the result and, though perhaps a less serious condition than the original, is very distressing. Published reports mention cure, improvement, or non-improvement of the urinary obstruction with exceptional reference to this untoward sequela. It must be said, however, that prostatectomy has gained new advocates and that consensus of opinion declares its value in chosen cases. In the failure of conservative methods it will surely survive. The criticism of prostatectomy from a mechanical standpoint is that it attempts the reduction of an elevated structure by attacking the highest and most inaccessible supporting structure, and one which is adjacent and adherent to it, and that in so doing it necessarily injures the vesical elevation and exceeds the required reduction by removing the natural inferior vesical support. In other words, it attempts a mechanical task by the most difficult means.

TWO NEW OPERATIONS REMOVING THE INFERIOR SUPPORTING STRUCTURES. As was noted, the structures supporting the vesical elevation, besides the overgrown retro-urethral prostate, are the prostatic sheath, levatores ani and perineum. Two operations avoiding the uppermost but attacking the lower ones, have been proposed. E. W. Andrews,* arguing that were the prostate freed from the fixed space behind the pubes, it would expand and cure obstruction, devised an *"infrapubic section"* through which he divides the levator ani of one side and the puboprostatic ligament and removes, extra-urethrally, a segment of the pre-urethral prostatic ring. This procedure releases but slightly two of the inferior supporting structures, the levator ani on one side, and the prostatic sheath above and not where it can result in much reduction. The mechanical criticism of this method is that it does not attack the sheath and pelvic muscle from below at the point where they exert greatest support and are easiest of approach. Moreover, the degree of reduction obtained would be inadequate.

The second operation is that of H. Delageniere† and called by him *"subperineal prostatopexy or dislocation of the prostate."* The feature of this operation is that the retro-urethral prostate, after being freed from the capsule or sheath below, as in perineal prostatectomy, is drawn or dislocated downward. The principle involved is that the most important supporting structure—the sheath—is removed, permitting the prostatic mass above to sink and with it the elevated bladder floor and urethra. Whether the reduction obtained is sufficient depends upon the height of the elevation. That it must often fail is evidenced by the author's recommendation that it give way to total enucleation in enlargements of much size.

Mechanically speaking, the principle of these two operations is correct in that, by removing the inferior support, it induces reduction without injury to the elevated structures, the bladder and urethra. But they do not go far enough, and no method can be successful which does not permit of complete reduction for all degrees of elevation.

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*Journal A. M. A., Oct. 18th, 1902.

†Archiv. Provincial de Chir., 1902.

THE PROBLEM OF REDUCING VESICO-URETHRAL ELEVATION. As was noted, the reduction of the elevated vesical neck and urethra requires release of the supporting structures maintaining such elevation, viz., the overgrown surgical prostate, the levatores ani and the perineum. How can this be accomplished in the easiest manner and yet effectively and without injury to the elevated parts or undue risk? Mechanic principles teach us that the task of reducing an elevation is usually most simply and completely performed by removing, first, the lowest and most accessible support, then the next higher, and so on till the required reduction is obtained; that we should expect to find the simplest method in removing perineal support, then the levatores, then the prostatic sheath, and, if necessary, segments of the lower portion of the prostate sufficient to permit downward displacement of the upper protruding portion. Anatomically, such a procedure seems to bear out the mechanical claims. Release of the support of the perineum and levatores ani would induce a certain degree of sinking of the bladder floor, as rupture of the perineum does in the female, were it not that it is supported by the prostatic sheath and the surgical prostate. Release of the prostatic sheath would free the prostate of its greatest support and permit it to fall and to fall farther than in Delageniere's operation, because more room is given the prostate to sink into by the released perineal support, and therefore to produce greater reduction. Removal of the inferior portions of the retro-urethral prostate would permit of dislocation downward of the upper protruding portion and with it reduction of the elevated bladder and urethra.

ANATOMICAL EXPERIMENTS. To test the possibilities suggested by this study of the mechanics of reduction, I followed out the principle involved upon three prostatic subjects post-mortem. In each case Zuckerkandl's bi-ischial perineal incision was made, exposing the bulb of the urethra and the posterior half of the perineum. The support of the latter was released by dividing the recto-urethral muscle just behind its attachment to the bulb. This served another purpose besides weakening perineal support, namely, enlarging the operative field by allowing the rectum to drop backward. The levatores were then divided, still more enlarging the operative field and facilitating exposure, and the prostatic sheath opened along the under surface of the prostate from apex to base. The sheath on each side was separated from the lateral and under surfaces of the retro-urethral prostate by the finger (as in prostatectomy). In two cases the bladder was opened above, only to experimentally confirm the extent of reduction of the neck and floor of the bladder, and in all three a Thompson searcher was introduced through the urethra for the same purpose. After freeing the sheath, the prostate was dislocated downward, very readily in one case, but only slightly in the others, because of considerable size of the lateral lobes.

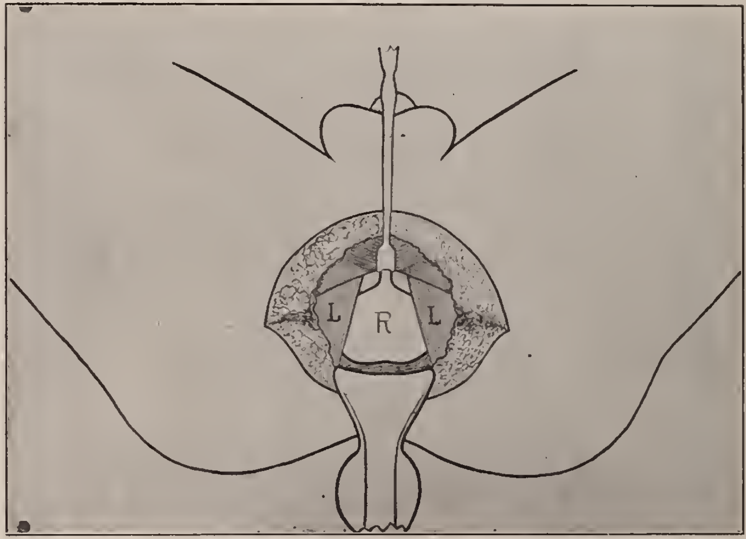

FIG. 5.

Diagrammatic sketch of the field of operation after liberal perineal incision and division of recto-urethral muscle. Kocher's inverted V, Senn's inverted Y, or Zuckerkandl's horseshoe incision (as above) are necessary for adequate exposure. Division of the margins of the levatores (*L*) on each side is not difficult and can be limited to the width of the retro-urethral prostatic mass (*R*). Longitudinal or transverse incision of the prostatic sheath with digital stripping of it from the lower and lateral surfaces of the prostate permits eversion of the latter downward. Removal of segments of the outer and lower portions of the lateral lobes is possible without injury to the urethra, ejaculatory ducts or bladder. Sections sliced from the lateral surfaces of the retro-urethral prostatic mass narrow it and allow it to drop between the levatores ani, while sections from the inferior surface bring about greater dislocation downward of the upper protruding mass.

In each case the reduction of the elevated neck of the bladder was very plain but insufficient. In each case sections were removed from the outer and lower portion of each lateral lobe. This resulted in still greater reduction and, in one case, where the enlargement was almost entirely of the middle lobe, with marked upward projection of the bladder floor, the latter disappeared entirely. In each case the reduction seemed complete, the retroprostatic pouch was obliterated and good bladder drainage restored except in one subject where the pouch was large and trabeculated. In each case the urethra and bladder and ejaculatory ducts were uninjured, and enough of the prostate remained untouched to perform its functional purposes, in all probability. In each case the searcher indicated accurately the degree of reduction obtained. In each case the steps were easily carried out; the operative damage was slight—slight compared with prostatectomy with its unavoidable injury of the urethra, and the resulting wound was superficial and capable of being made surgically clean. It was noted that even in moderate elevations it would undoubtedly be necessary to remove small sections of the lower prostate. That this method reduces vesico-urethral elevation effectively and by an operative procedure comparatively simple and harmless in character, was confirmed by these experiments. Of its possibilities I was impressed at the time, and that it was a sufficiently safe and easy operation for general application.

I feel convinced that this method is appropriate in early cases of prostatic hypertrophy before the urinary tract has become infected and disorganized, because it can be carried out as an aseptic operation with all that means; because the urinary organs are uninjured and because the operative risk is seemingly small. Prostatectomy, on the other hand, fails as a justifiable measure in early cases for the reason that it is hazardous and needlessly opens the non-infected urinary tract and requires drainage. In advanced cases with cystitis, this method can be combined with perineal urethrotomy if desired. In aged and very advanced cases, where renal and other complications are present and a general anesthetic contraindicated, because of its superficial character, it might be executed under local infiltration anesthesia. In cases where the degree of elevation varies, the extent of operative procedure can be gauged according to requirements.

This method of reducing the vesico-urethral elevation in prostatic enlargement is yet purely a suggestion—a suggestion based on an analysis of the mechanical problem involved, and confirmed by anatomical experiment. Although untried clinically, it should accomplish reduction more satisfactorily than prostatectomy, the only method which successfully effects reduction. It is directly opposed to prostatectomy, in that it attacks the inferior supporting structures, avoiding attack on the protruding prostatic mass above—while prostatectomy attacks this mass above, avoiding injury to the pelvic and perineal support below. While prostatic surgery has always shunned injury to the pelvic floor, the harm of removing perineal support in the male is unknown and is probably *nil* because, unlike the female, there are no other important pelvic organs except the bladder to prolapse. Support of the bladder floor, following this method, would be maintained by the portion of the retro-urethral prostate remaining and the cicatrix, filling in the perineal would be low. Prostatectomy, on the other hand, removes all support except the pelvic and perineal floor.

The conclusions which are to be drawn from the analysis of the problem in prostatic hypertrophy are:

(1) That it is not the prostate, but the adjacent urinary tract, which demands relief.

(2) That the direct cause of the interference with urinary evacuation is the displacement of the outlet and floor of the bladder resulting from enlargement of the retro-urethral portion of the prostate.

(3) That until the precise cause of prostatic overgrowth is known and successful preventive measures evolved, we can only hope to relieve this condition by correcting the displacement.

(4) That until an effectual method which is sufficiently safe and simple for application before infection and disorganization of the urinary tract has resulted, surgery can not bring any great relief.

(5) That the logical mode of correcting vesico-urethral displacement is by reduction, is evidenced by the fact that operative methods improve urinary evacuation by virtue of their power to reduce, more or less successfully, this displacement.

(6) That while some of these methods partially (sometimes completely) accomplish reduction with comparative safety, and others entirely reduce the displacement, but at considerable risk, none does so with both safety and success.

(7) That, since the reduction of the vesico-urethral elevation is essentially a mechanic problem, reduction based on anatomic and mechanic principles should prove the simplest and safest method.

(8) That the method I have described is based on such reason-

ing and has received satisfactory confirmation through experimental work. That it will prove sufficiently safe and effective for general application, clinical results alone can show.

Ever since Morgagni discovered that the dysuria and urinary obstruction common in old men was due to an enlargement or hypertrophy of the prostate, surgery has attempted relief by removing in one way or another the "prostatic obstruction or obstacle," as the only curative or corrective measure. That hypertrophy is the cause of this form of dysuria, is an established truth. That it is the indirect, and displacement of the urinary tract the direct cause, examination of the bladder and urethra in these cases will prove. That in reduction of the vesico-urethral elevation was the mode of relief, and removal of the prostatic obstacle unnecessary to, the "cure of obstruction," was demonstrated to me during a combined suprapubic and perineal prostatectomy. It was observed that, after the prostate was freed from its sheath and before it was removed, traction obliterated and corrected the bladder deformity. How to accomplish this without excision of the prostate and injury to the bladder led to a study of mechanics of displacement and anatomical experimentation as herein briefly put down.

CLINICAL NOTES.

A CLINICAL CASE OF HEMORRHAGIC INFARCTION FOLLOWING TONSILLOTOMY.

By Drs. H. G. Lazelle and Kenelm Winslow.

SEATTLE, WASH.

The patient, Mr. J. F. O., is 23 years old—a janitor—born in Newfoundland. Family history unimportant. Personal history: he has had the diseases of childhood, including diphtheria. Except for tonsillitis and specific urethritis on two occasions, he does not recall any disorder of consequence. He is rather thin and has lost a number of pounds during the last six months, he thinks. He is a moderate user of tobacco and also drinks alcohol on occasions.

On October 12 last his tonsils were removed, being very thoroughly dissected out. Three days after the operation, and without any apparent cause, he was awakened at 3 o'clock in the morning by a sudden, violent pain in his right side, which was increased on inspiration and movement of the chest. He was unable to rise from bed, so great was his distress. The pain was closely confined to the lower margin of the ribs in the anterior axillary line. It was continuous and did not radiate from the spot described. Other symptoms were absent except sweating. Dr. Lazelle was called and saw the patient at half past eight in the morning. He was sweating profusely and in considerable pain, but not so much so as at the onset. The pupils were dilated. Heart sounds were normal. The breathing was restricted and catchy but regular in rhythm and, in rate, twenty. The vocal and tactile fremitus were normal; also percussion and auscultation revealed nothing. Deep inspiration caused intense pain. The temperature and pulse were normal. There was some tenderness on deep pressure along the costal margin in the axillary region. Examination of the urine showed urea-content and other elements normal.

Treatment. Strapping, external heat, salts, rest in bed and iodine t. i. d. The patient remained in bed five days with gradually improving condition as regards pain, an opiate not being required. During this time the only change noted in the lung—although the chest was covered by plaster—was markedly lessened intensity in the respiratory sounds. When the strapping was removed there was observed, on auscultation, a very distinct prolongation of the expiratory sound over an area as large as a man's fist, at the junction of the eighth costal cartilage and the anterior axillary line, on the right side. His temperature varied during the day, when taken at two-hour intervals, from 97 4-5 deg. to 99 1-5 deg. F. When he began to get about there was noticeable dyspnea on exertion, and pain in the chest, on taking a deep breath, sneezing, yawning, etc., was felt in the same location. About this time he was seen in consultation by Dr. Winslow.

The pain in the chest lasted in all about two weeks and since that time the patient has been at work and in fair condition. We show this case as one of hemorrhagic infarction, following removal of the tonsils and probably resulting from escape of a blood clot from the tonsillar plexus, through the facial vein into the internal jugular, and thence through the innominate into the superior vena cava to the right heart, from thence into the right pulmonary artery to the right lower lobe of the lungs, blocking up there a terminal branch of the artery. We base this diagnosis on the following points: the presence of an etiologic factor in the recent operation; the suddenness of the attack; the location of the trouble, since two-thirds of all hemorrhagic infarcts of the lungs are found in the right lung and usually in the lower lobe. No explanation of this fact has come to our notice and the only one which occurs to us is that the right is considerably larger, in supplying three lobes, than is the left pulmonary artery. Then, as further confirmation of our diagnosis, are the severe pleuritic pain and dyspnea; such pain being characteristic and the most constant symptom of small infarcts.

The only condition with which the one under discussion could be mistaken for is muscular rheumatism, and we do not believe that this is a case of that disorder for the following reasons: First, that the pain was limited to a small circumscribed area in which an alteration in the respiratory sounds was detected; then there was neither shifting of the pain or pain anywhere else, and the patient had never been subject to rheumatism. Pleurodynia is moreover seen more frequently on the left, while infarction occurs more commonly on the right. The only muscle which could have been involved would have been the intercostal, and of that only part of the belly—not a probable condition. The suddenness of the attack when the patient was lying quietly tends also to preclude rheumatism. Intercostal neuralgia is more common in women; is paroxysmal and the tender points are situated higher up in the chest over the nerve endings.

If it be objected that the symptoms are indefinite it may be rejoined that this is one of the characteristic features of infarction. A diagnosis can never be made except by taking other factors into consideration. In plugging of a large branch of the pulmonary artery there are severe and immediate dyspnea, cyanosis and great difficulty in breathing. If the blood empties into a bronchus, bloody expectoration. Two such cases have come under our observation. One occurred in our presence in a woman who was confined a week previously. While lying quietly in bed she suddenly began to gasp for breath, became cyanotic and was apparently expiring. As this occurred in the ward of a lying-in hospital, it was the matter of a moment to perform venesection, which seemed to afford great relief and the patient recovered. The other patient was a woman who had aborted and was suffering from phlebitis and thrombosis of the pelvic veins which had extended into the thigh. On arising from bed, contrary to orders, to micturate, she began to fight for breath, her pulse had become rapid and feeble, and she was apparently dying. A priest had been sent for and all the windows were opened on a cold winter's day when she was seen. The condition seemed to offer little hope of recovery yet, under stimulation with nitroglycerin, strychnin, etc., she rallied only to die a year later of cerebral embolism from mitral disease.

It may not be amiss to add a few words as to the pathology of the condition. Hemorrhagic infarcts of the lung are wedge-shaped and commonly vary in size from a cherry to a walnut or even that of an orange. They not infrequently are multiple. The base of the infarct usually extends to the surface of the lung involving the pleura. The wedge-shape of the infarct represents the area supplied by the plugged arterial branch. After the plugging has occurred the pressure in the capillaries and veins connected with the plugged vessel is nil, and the blood flows back from these into the arterial branches in which the circulation is shut off. An area of lung engorgement is thus formed. The walls of the capillaries and veins, in which the circulation has ceased, lose their normal consistency, become pervious, and migration of red and white blood cells takes place into the alveoli and connective tissue of the lung; such is the pathology of an infarct.

The branches of the pulmonary vessels are end-arteries without collateral circulation but anastomosis with wide capillaries and bronchial vessels may prevent infarction after plugging of the pulmonary artery. In appearance an infarct looks at first like a blood clot, its base on the surface of the lung being covered by roughened and inflamed pleura. Reabsorption may occur, or contraction owing to the formation of cicatricial tissue, with only a puckered, pigmented patch remaining. Gangrene of the lung may follow large areas of infarction. The infarct may break down and be absorbed or expectorated. Septic emboli give rise to suppuration and abscess. Caseation and calcification are also possible end-results.

Hemorrhagic infarction arises from embolism or thrombosis of the pulmonary artery. Emboli may originate from thrombus-formation in the pulmonary vessels; or in the right heart in the auricle, in the interstices between the trabeculae, about the valves and chordae tympanae and in the apex, especially when the right heart is dilated from mitral disease. Clots also commonly escape from veins of the pelvis and lower extremity. The more frequent conditions in which hemorrhagic infarction of the lung occurs are chronic mitral disease, the puerperal state and after pelvic operation, with or without sepsis. Emboli may originate from any part of the venous system and reach the pulmonary circulation but, if coming from the left heart, could not pass through the capillaries and cause plugging of the pulmonary vessels.

We present this case of hemorrhagic infarction as an example of a post-operative condition which is not very rare and may occur whenever veins have been subjected to traumatism. No instance of a case following tonsillotomy has come to our notice but we have made no search in literature for such.

The treatment of hemorrhagic infarction of the lung consists first in absolute rest in bed in the horizontal position, and this may also prove prophylactic in states likely to give rise to embolism. Otherwise no rules can be laid down as our treatment must be purely symptomatic.

NORTHWEST MEDICINE

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Published Monthly by the Washington Medical Library Association.
Editorial and Business Office - Marion Building, Seattle, Wash

Subscription Price, $2.50 per annum in advance. Single Copies, 25 Cents.
Foreign Countries, $3.00 per annum.

Entered March 14, 1903, at Seattle, Wash., as Second Class Matter, under Act of
Congress of March 3, 1879.

VOL. 1. DECEMBER, 1903. NO. 12

RELATIVE PROGRESS IN MEDICINE AND SURGERY.

The belief prevails, and is often expressed by the laity, that wonderful progress has been made during recent years in the domain of surgery while medicine is still largely a matter of guess work and has made little scientific advance. This ignorant view is fostered by the attitude of the daily press which delights in offering to its readers detailed descriptions of surgical operations which certain noteriety-seeking physicians are ready to disclose, presumably obtained, however, without their consent. There is a glamor about the knife and shedding of blood that attracts the attention of the public at large. This view is also encouraged, perhaps unwittingly, by the physician himself who takes occasion to describe to his friends the wonderful triumphs of modern surgery, but neglects the victories of medicine. The criticism is made that the profession has gone surgically daft, as witnessed by the undue space allotted to surgical subjects in the journals and the preponderance of surgical papers on the programs of society meetings.

If an attempt were made to determine the relatively greater progress of one of these branches of our profession over the other, a decision might be reached by estimating the comparative number of lives saved by each, as a result of the advances of recent years. On this basis we might safely affirm that, where the surgeon had saved his hundreds the physician can claim his thousands. The marked advances in the domain of surgery for the past decade are chiefly confined to the abdominal cavity. Pathologic conditions of the appendix, gall-bladder, liver and pelvic organs have been thoroughly worked out and the necessary operations on them perfected. While the same is not yet so true of the stomach and pancreas, these organs will soon fall in line and their diseased states be equally exposed to successful attack. By these procedures very many hopeless sufferers have been restored to health and valuable lives rescued from impending death. To these can be added the results of the perfected operations in brain surgery, though presenting a more limited field than the others mentioned.

An enthusiast might be tempted to offset all these life-saving measures by one of several medical discoveries of the present day. Who can estimate the number of lives saved by the use of diphtheria antitoxin? Nearly every community can marshal cases sufficient to rival those presented by the combined agencies above enumerated. The discovery of the mosquito as the active factor in the dissemination of malaria and the fact that its destruction will eliminate this disease, has opened the way for the wholesale saving of lives, the rescue of thousands of others from years of misery and rendering death-laden areas of the earth safely inhabitable. Likewise, the associated discovery of the agency of this familiar pest in the propagation of dreaded yellow fever has led to the removal of the greatest terror of life from many cities and countries. There is a prospect, by united efforts of the regions where the disease is endemic, of stamping it out of existence, thus preventing the annual harvest of death that has existed in many parts of the earth from this cause. One of the latest medical triumphs is the demonstration of the role played by the hook worm in the etiology of uncinariasis, the cause of so many lives of misery and premature deaths, in the southern section of our land. The proof that the prophylaxis and cure of the disease is of so simple a nature gives promise of its speedy eradication. In this connection we should pay especial attention to the startling results obtained in combatting the "great white scourge," pulmonary tuberculosis, a contest progressing under our very eyes with no flare of trumpets but presenting the evidence of lives rescued from death, under the approved fresh air and dietary treatment, that has never been equaled in the history of this greatest ally of grim death.

The object here intended is to remind the physician that his brother surgeon has no monopoly on the glory and honor of modern triumphs. The medical necessity of the day is for the family practitioner who listens to all the complaints that flesh is heir to and administers to each with judgment and discretion, as he has done since the days of antiquity.

THE REPORT OF THE STATE EXAMINING BOARD FOR 1903.

The following report presents interesting statistics relating to the increase of the medical profession in the State of Washington during the current year.

The total number of applicants before the Board, 140, is said to be the largest on record for one year. Of this number 119 or 85 per cent, were successful. That 21, or 15 per cent, failed indicates a commendable degree of strictness on the part of the examiners.

The inquiry is often made as to whence come the additions to our medical ranks. Reference to the accompanying table will show that the newcomers are distributed among the majority of the northern states containing medical schools, few appearing from the southern schools. The latest report on medical colleges, from *The Journal of the A. M. A.*, of August 15, places medical institutions in thirty-two states. We have drawn on eighteen states for this year's supply. We are informed that 154 medical schools are required to provide physicians for the United States. Washington received representatives from 66 of them this year, besides calling on 4 of Canada. If we examine more closely, it is noted that 25, or 18 per cent, graduated from schools on the Atlantic Coast, 8, or 6 per cent, from those on the Pacific, while 96, or 68 per cent, came from schools of the Middle West, leaving 11, or 8 per cent, to those of Canada. These figures correspond, in a general way, to the distribution of the population in these sections.

While invidious comparisons are not intended, it is of interest to note the source of those failing to pass the examination. From the Atlantic Coast 24 passed and 1 failed, or 4 per cent; from the Middle West 80 were successful and 17 failed, or 17 per cent; from the Pacific 6 passed and 2 failed, or 25 per cent; while Canada gave 10 successful and 1 failed, or 9 per cent. Naturally, the new physicians come chiefly from the East, the source of the population at large, so that we can correctly say the medical profession of the state, as a rule, is recruited from the East.

CLASS OF 1903.

Name of College.	Passed.	Failed.	Total.
California—			
Cooper Medical College	5	1—'97	6
University of California	1	..	1
California Medical College	..	1—'02	1
Illinois—			
Rush. Medical College	9	4-'79,'85,'96,'97	13
Hahnemann Medical College	2	..	2
Illinois Medical College	1	1—'02	2
Northwestern Medical College	5	2—'97, '99	7
College of Physicians and Surgeons	10	..	10
Dunham Medical College	1	..	1
Chicago Homeopathic Medicine	1	..	1
University of Illinois	1	..	1
Iowa—			
Keokuk Medical College	1	..	1
Kentucky—			
Kentucky School of Medicine	..	1—'97	1
Louisville Medical College	2	2—'98, '00	4
University of Kentucky	1	..	1
Hospital College of Medicine	1	..	1
Massachusetts—			
Harvard Medical College	2	..	2
Boston University	1	..	1
Michigan—			
University of Michigan	6	1—'02	7
Detroit Medical College	5	..	5
Ann Arbor Medical College	1	..	1
Minnesota—			
Minnesota State Medical College	1	..	1
University of Minnesota	7	..	7
Minneapolis University	1	..	1
Maryland—			
University of Maryland	1	..	1
Baltimore College of Phys. and Surg.	1	..	1
Maine—			
Medical School of Maine	1	..	1
Missouri—			
St. Louis Medical College	2	..	2
P. & S. Medical College	..	1—'93	1
Homeopathic Medical College	1	1—'98	2
Kansas Medical College	4	1—'89	5
Missouri Medical College	1	..	1
Washington University	1	..	1
Barnes Medical College	2	..	2
Marion-Sims	1	..	1
St. Joseph's Medical College	..	1—'87	1

New York—			
Bellevue Medical College	1	..	1
Columbia University	1	..	1
Cornell University	1	..	1
University of New York	1	..	1
Long Island Medical College	1	..	1
Nebraska—			
Omaha Medical College	2	..	2
Lincoln Medical College	..	1—'97	1
New Hampshire—			
New Hampshire Medical College	..	1—'76	1
Ohio—			
Starling Medical College	..	1—'97	1
Ohio Medical College	2	..	2
Cincinnati Medical College	1	..	1
Cleveland Medical College	1	..	1
Eclectic Medical College	1	.	1
Hahnemann Medical College	1	..	1
Pennsylvania—			
Jefferson Medical College	3	..	3
University of Pennsylvania	3	..	3
Eclectic College of Pennsylvania	1	..	1
Hahnemann Medical College	1	..	1
Tennessee—			
Vanderbilt University	1	..	1
Tennessee Medical College	2	..	2
Virginia—			
Virginia Medical College	1	..	1
Washington, D. C.—			
Washington, D. C., College	1	..	1
National University of Washington	1	..	1
Georgetown University	1	..	1
Central Medical College	1	..	1
Canada—			
McGill Medical College	5	..	5
Trinity University	3	1—'97	4
University of Toronto	1	..	1
Manitoba Medical College	1	..	1
Totals	119	21	140

The Examining Board for 1904 is constituted as follows: President, F. H. Coe, of Seattle; secretary, P. B. Swearingen, of Tacoma; C. E. Grove, of Spokane; C. W. Sharples, of Seattle; G. W. Overmeyer, of Aberdeen; J. M. Chalmers, of Vancouver; A. E. Stuht, of Colfax; J. H. Hoxey, of Spangle; E. E. Shaw, of Walla Walla.

MEDICAL NOTES.

The Pacific County Medical Society.—The youngest county society of Washington is that of Pacific, organized during the summer, which has recently received a charter from the State Association. It will meet the third Monday of January, April, July and October, at South Bend. The present roll of officers is as follows: President, G. W. Overmeyer; Vice-President, E. Klampke; Secretary, Mary W. Gunnell; Treasurer, T. S. Kennedy.

We wish the society prosperity and sufficiently rapid growth soon to include the whole profession of the county.

The January Meeting of the Washington Examining Board.—The next meeting will be held at Tacoma, in the U. S. Court Room, on the first Tuesday and Wednesday of January. The examination may be extended to Thursday in order to avoid the haste of some previous examinations. The Board states that candidates must be present at the opening session or they will not be permitted to enter the examination. It is desired to notify physicians who may at present practise in the state on sufferance, and have not appeared for examination, that they must present themselves before the Board at this time in order to secure a license for the legal practice of medicine.

Reciprocity with Other States.—At present no arrangement exists with other states for the mutual recognition of licenses. All physicians contemplating practice in this state must obtain a license from the State Board or become liable to prosecution for practising illegally.

Review of Greek Medical Literature.—So far as we know, Greek medical journals are not reviewed by the journals of this country. We have made arrangements with Dr. G. N. Mackridakes, of Seattle, periodically to present abstracts of articles of interest from the journals of Greece. The doctor is a graduate of the University of Athens; later he pursued post-graduate studies in Paris; after spending some time in the hospitals of Boston he began practice in Seattle. We believe something of interest will be presented to our readers, of medical matters concerning which few of us are posted.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of November 2, 1903, President Sweeney being in the chair. Thirty-five members and visitors were present. The name of A. W. Hawley was proposed for membership and referred to the proper committee.

CLINICAL CASES.

Raynaud's Disease.—Dr. Sharples presented a case of this disease in the person of a fellow practitioner of 55 years. He stated that for many years he had experienced ischemia of the fingers, in the presence of cold, the whiteness and numbness continuing for a short period. The present attack began three weeks ago with ischemia of the fingers of the left hand, most marked in the middle and ring fingers. It was followed by excruciating pain at intervals and more or less local anesthesia. Later they turned blue. At present these two fingers are tender to the touch, shriveled in appearance, blue in color and present small areas of gangrene at the tips. The periods of pain are not so severe. Dr. Sharples gave a description of the disease, with theories as to its etiology, and said the prognosis is uncertain, each case being a law unto itself.

Dr. Stillson said the patient consulted him a year ago, when he found ischemia of left eye and some retino-choroiditis, but there was no loss of sight.

PATHOLOGIC SPECIMENS.

Carcinoma of Stomach.—Dr. Smith presented the stomach of a man of 66 years who had suffered from gastric disturbance for six months. He appeared for treatment about a month ago, complaining of loss of strength, emaciation, loss of appetite, dull pain about the epigastric region. Palpation found tenderness over stomach but no induration or tumor could be found of stomach or liver. A test meal gave total absence of HCl and no reaction for lactic acid. He was given salts, which was followed by a free evacuation of blood and hematemasis. An exploratory incision revealed an apparently patent pylorus, free anterior surface of stomach but a hard mass involving the posterior wall, fixing it firmly. Death followed in three weeks. The autopsy showed a cancerous involvement of the stomach wall except the anterior surface and region of pylorus, all of the pancreas except head and tail, also the junction of the transverse and descending colon, which disclosed an opening when the stomach was removed. The impressive feature was the extensive involvement of stomach with an absence of palpable growth.

The stomach and intestines of a kitten, claimed by Mr. Tanzer to have been poisoned by milk containing formaldehyde, were exhibited by Dr. Smith. He explained the history and asked for opinion as to whether the organs presented an abnormal appearance. Several members believed they did not vary from normal organs. The President requested the Pathologic Committee to take them for examination and to report at the next meeting.

Dr. Becker referred to his recent visit to Europe, and his work on the etiology of cancer, covering several years. He believes we know no more about the etiology now than formerly; that none of the recently presented theories have proven of value; he believes the cause will be found chemic rather than microbic. While in Paris he discussed the subject with Metschnkoff and Borrell, who believe the agent is microbic, perhaps an ultra-microscopic organism that will pass through the filter. In Berlin he talked with Dr. Stoerch, who had reached the same conclusion as himself. He thought no microbic theory will account for the epithelial growth. Weichselbaum holds the same theory.

Dr. McDowell had for some time held to a chemic causation, producing a change in katabolism. He believes the microbic theory has been abandoned by the leading authorities in Europe and America.

PAPERS AND DISCUSSION.

The Tent Treatment of Consumption at King County Hospital.—Dr. O'Rourke, physician in charge, described the construction of the tents in use, the arrangements for sanitation, cooking and sleeping. He mentioned the improvement that soon appeared in all patients so treated during the past summer and commented on the advantage of thus caring for the consumptive county charges. He described the hopeless condition into which these patients soon come under the old form of hospital treatment. In reply to questions he said the patients are fed five times daily; that the pulse and temperature lower, with generally improved condition.

Dr. Harris described a case of incipient tuberculosis, with bacilli in sputum, who lived in a tent during the past summer, ate four meals daily, received a bitter tonic and now presents no symptoms or physical signs of the disease.

Dr. Read mentioned several institutions in Eastern states where the fresh air treatment was successfully conducted. He wished to caution against untimely diagnosis of consumption, when it did not exist, thus causing distressing worry and anxiety. The presence of bacilli in the sputum is the only positive proof of the disease and, until they are found, a diagnosis should be held in reserve.

Dr. Winslow thought this plan of treatment could be better carried out in the East during winter, on account of more sunshine and dryness, than in the dampness of Puget Sound. Here it would seem necessary to close the tent wings at night.

Dr. Tripp commented on the numerous logging camps in this section that, when hereafter abandoned, will prove excellent locations for this treatment. We should let the public know the disease is curable.

Dr. Sharples objected to the statement that bacilli in the sputum are essential for a diagnosis. Especially in children we have difficulty in finding them. Very often we can get no sputum. We should not dismiss the patient with a negative diagnosis under these circumstances.

Dr. Stillson thought treatment should begin as soon as the disease is suspected. Often many examinations are needed before the bacilli are found even in an adult. As result of physical examination alone one can be on guard for tubercular development.

Anesthesia.—Dr. Parry read a paper on this subject, reciting the arguments in favor of ether and chloroform, their physiologic actions and contraindications. He mentioned the conditions in which each is to be preferred, expressing himself in favor of ether, as a rule.

Dr. Carroll commended the paper and views expressed. He thought ether the safest but approved of chloroform for minor operations and short anesthesia. In all cases the patient should have an abundance of air.

Dr. Winslow cautioned against the production of conjunctivitis by touching the eye with the finger. He also referred to the release of chlorine gas from the chloroform, in the presence of a gas flame.

Dr. Miles thought much depended on the anesthetizer and his preferences for resuscitating the patient; it is well to have several methods available.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of November 16, 1903, President Sweeney being in the chair. Forty-five members and visitors were present. Drs. R. Edson and A. W. Hawley were elected to membership. The name of Dr. G. W. Hawley was proposed and referred to the proper committee.

CLINICAL CASES.

A Case of Hemorrhagic Infection Following Tonsillotomy.—Dr. Winslow presented this patient and read the history of his case. (See page 642.)

PATHOLOGIC SPECIMENS.

An Acervical Monster.—Dr. Tripp presented a full term fetus of normal appearance except absence of the neck. The head was placed directly on the trunk, the ears being adjacent to the shoulders. The history was as follows: Pimipara Aged 24. Native of Canada. Married 14 months. Menstruated since her 15th year. Menstruation was always regular and without pain. Has always enjoyed good health. Family history on parents' side good. Mother had seven children, all now grown and enjoying good health. Her husband is a rugged Scotchman and claims never to have been ill. Has never had venereal disease. Her confinement was tedious and lingering. Fetus was born dead, having evidently been so three or four days. When first seen she complained of a cold sensation in the abdomen, this having been so for two days. Felt no life for several days. At first examination the amniotic sack was visible and she was sent at once to the hospital. A few hours after entrance pains commenced and continued until delivery, which was accomplished by the aid of forceps, on account of difficulty of restitution of the head. Mother's recovery was uneventful.

PAPERS AND DISCUSSION.

The Phenomena of Thought.—Dr. Edson read this paper, illustrated by diagrams and stereopticon. He gave an explanation of the phenomena of the cyclone, waterspout and monsoon, stating they were produced by currents of air following a certain course from periphery to center and vice versa. By means of small propeller blades, revolved in a globe of water, he produced currents which he stated were analagous to those of the atmosphere at time of these physical phenomena. These material lines of motion were applied to the action of thought, which, he said, has a material existence and follows a like course. He quoted Swedenborg on the subject, displaying a diagram from his writings, termed a thought vortex, according to which thought follows a series of curves as if starting from the core of an apple, appearing on the surface, returning to the center again and indefinitely following this cycle.

He compared thought to wireless telegraphy, in which a multitude of messages may be sent from as many transmitters but each will be received only by the instrument that vibrates in harmony with its transmitter. So the thought of one person may be received by the mind of another whose thought vibrates in harmony with it, regardless of distance or material obstacles. He predicted that, when thought is thus properly trained, one may be able to hold communion with the inhabitants of other planets. This is his explanation of telepathy and kindred mental phenomena.

The paper was discussed by Drs. Burns, Loughary, Marsh and Greenstreet.

WHATCOM COUNTY MEDICAL SOCIETY.

President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held in the library room of Odd Fellows hall, Monday, Nov. 9, 1903. The meeting was called to order by President Holt.

A communication was read from Dr. A. H. Coe, secretary of the Washington Medical Association, calling attention to the fact that the annual dues and list of practicing physicians in the county had not been forwarded to the State Secretary. Upon motion by Dr. Hunt the Secretary was ordered to comply with the requirements of the State Association at once.

The application of Dr. H. S. Johnson for membership in this Society was received and referred to the proper committee.

The program of the evening consisted of a very interesting clinical talk by Dr. L. R. Markley, who exhibited a number of pathologic specimens from local cases of unusual character. General discussion followed.

The program committee suggested the advisability of inviting the President of the State Medical Association to meet with us and read a paper on some subject of general interest. Upon motion of Dr. Smith the suggestion was ordered carried out and the Secretary instructed to comply with the same.

The meeting adjourned to meet the second Monday in December.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE.

Edited by

C. W. Sharples, M. D. H. M. Read, M. D.
SEATTLE. SEATTLE.

Mistakes in Diagnosis of Pulmonary Tuberculosis. (By Schmidt Deutsche Medicinsche Wochenscrift, and Jour. A. M. A. Oct. 31, 1903.)

The writer says we are getting into the habit of diagnosing tuberculosis when there is no real necessity for doing so. Naegeli, he says, has shown the liabilities that we are all tuberculous, and the practitioner has only to decide whether the tuberculous infection is latent or progressing. He thinks that infinitely more harm is done by needlessly frightening persons by telling them they are tuberculous, than by overlooking a few cases which later prove to be progressing tuberculosis. He asserts that the serum and tuberculin are the most valuable when they are negative.

He has frequently met persons who have been physically and mentally rendered unfit for any occupation by the needless diagnosis of tuberculosis; they go from one sanitorium to another and are never well because their alarm keeps them ill. Physicians are overzealous, he says, and a halt should be called. The progress of the disease in doubtful cases will soon settle the question and still be in time for appropriate treatment. He points out three sources of error in the diagnosis of clinical tuberculosis. First, the physical signs of dulness and retraction of the apex which may be caused by an irregular shape of the shoulder girdle. The second is from small foci of bronchiectasis, and third, the pseudo-rales and friction sounds made by the edges of the lungs. He describes five cases in detail in which several physicians had made a diagnosis of tuberculosis on the ground of dulness and apparent retraction of the apex, but that careful and repeated examinations during a long period and the negative tuberculin test demonstrated the diagnosis wrong. These defects in shoulder girdle, he says, are by no means uncommon, and may be due to congenital or pathological changes in spine, scapulae or shoulder and neck muscles. Small foci of bronchiectasis may produce repeated attacks of hemoptysis, simulating tuberculosis. Read.

The Use of Colloidal Silver in Infectious Diseases.—(By Dr. Netter. Journal de Medicine, vol. XV., and The Am. Jour. of Med. Sciences. July, 1903.)

The writer names a number of infectious diseases which have been quickly relieved by the use of colloidal silver or collargol, which Crede was first to introduce as a medicine. When used externally, colloidal silver is used as an ointment (Ung. Crede) 15 to 100, and as an intravenous injection in a solution of 1 to 200.

Use 15 to 45 grains of the ointment, according to age of patient. For intravenous injections the amount varies from one-half to five-sixths of a grain. The use of collargol has grown widely and many physicians report remarkable cures in many different diseases. Wenchebache cites two cases of severe infectious endocarditis that were cured by the injections, and Klotz remarkable results in a septic endocarditis.

Dr. Netter reports ten different kinds of cases in which he obtained excellent effects from this remedy, among which was a case of pneumonia, in which the fever dropped immediately after intravenous injections and disappeared entirely in three days.

A suppurating cerebro-spinal meningitis was modified as suddenly, with apyrexia the day after the injection and a rapid convalescence. The result was not less complete in a severe scarlatina, two toxic diptheretic anginas, and in three adynamic typhoids. The last was of a medico-surgical nature. A physician seized with a pyohemia received almost instant relief from a single application of collargol. It is not certain that collargol acts antiseptically. There may be a neutralization of the toxins which produce such a rapid change in the body, and perhaps there is a stimulation of the defensive powers of the organism, or a catalytic action. READ.

STOKES-ADAMS DISEASE. (Editorial from Jour. A. M. A., Oct. 17, 1903.)

The writer very appropriately remarks too little attention has been paid to this remarkable symptom complex, in spite of the reports of Adams in 1827, and Stokes' article, which was published in *The Dublin Quarterly Journal of Medical Sciences* in 1846. So little attention has been paid to the subject that many good practitioners of today do not know what the term means.

"The disease, or rather symptom complex—for the anatomic lesions are not the etiology uniform—is, however, by no means an infrequent one, and it is characterized by a group of symptoms which permit it to be easily recognized."

The patient suffers attacks of syncope, which are often described as "attacks of apoplexy," with a very slow pulse, 28 to 30 beats per minute. The slow pulse may be a true or false bradycardia, or there may be complete arrest of the heart for even a half minute and then a resumption of the beat. With the more severe attacks there is usually involvement of the vaso-motor system, revealed by pallor, vomiting and sweating, and sometimes tingling and numbness, symptoms resembling closely those which occur in angina pectoris.

The nervous features of the disease are the most troublesome to the patient, and for these he usually consults a physician. They complain of dizziness and staggering without known cause, also there may be fainting spells with complete loss of consciousness. Some cases, in symptoms, closely resemble apoplexy, with deep coma, loud stertorous breathing and facial congestion, but the pseudo-apoplectic nature is shown by the absence of consecutive paralysis. Occasionally epileptiform seizures occur.

"Three groups of cases are distinguished: (7) a postfebrile group; (2) a neurotic group; (3) an arterio-sclerotic group."

The largest majority belong to the third group. The pathology of the disease is unknown. The cases largely occur in advanced life, although occasionally found in the young. Recovery with the severer symptoms is rare. The attacks may recur over a long period of years.

Death is sudden, in a seizure. The most to be done in treatment is to prevent, as far as possible, the progress of an underlying arterio-sclerosis when it exists. For syncope nitrite of amyl may be used.

Stokes-Adams disease has in past few years begun to attract the attention of the ablest clinicians in this country and abroad, and it is to be hoped that new light may soon be thrown on its etiology and pathology. Among the more valuable articles on the subject are those of Osler and Edes, of this country, published in *London Lancet*, Aug. 22, 1903—(Osler), and *Philadelphia Medical Journal*, 1901—(Edes), by Huchard, in France, and Hoffmann, in Germany.

READ.

ON THE HYPODERMATIC USE OF ADRENALIN CHLORIDE IN THE TREATMENT OF ASTHMATIC ATTACKS. (By Jessie G. M. Bullowa, M. D., and David M. Kaplan, M. D., Medical News, October 24, 1903.)

Taking the theory that bronchial obstruction is brought about by a spasm of the fibers of the bronchi, the use of adrenalin in asthma could not be explained, but these doctors, working upon the basis that the obstruction is caused by a turgidity of the bronchial mucosa, used adrenalin chloride in hypodermatic doses in a number of cases, apparently with a great deal of success. In the first case seven and a half minims of an old solution was used during an attack, which produced a quiet sleep in half an hour's time. Adrenalin was given at other times in smaller doses to the same patient with equally good results. Reports are made of other cases all of whom were materially benefited in a remarkably short time, and in two minutes by this method of treatment the pulse tension is increased, while, during an attack, the pulse tension is liable to be decreased. The increase of the tension after the administration of adrenalin is to be accounted for by its vasoconstrictive effect.

In one case marked pallor of the face and extremities was noticed. Theoretically a dose sufficient to cause vaso-constriction is necessary to cut short the seizure. Doses that were not sufficiently large to do this failed to give relief. With fresh preparations of the drug, 3 to 6 minims of the 1 in 1,000 solution would usually cut short the asthmatic attack without any disagreeable results. This should always be given hypodermatically. Large doses by the mouth do not cause the same effect, nor do sprays into the throat. SHARPLES.

SELECTION OF CONSUMPTIVE CASES FOR SANITARIUM. (By T. N. Kelleynack, of London, England.)

This essay, which is a reprint from the Hospital, is intended to give the proper directions for the selection of cases for institution treatment. There are three classes of patients to be considered, the rich, who of course can go to the many private sanitaria; a competent class, who can provide for themselves at any rate for a short time; and the great bulk of the consumptives who are the indigent. It is a mistake to send people to the free sanitaria who have progressed so far with the disease that no means can be of any benefit.

Hygienic management seeks to secure: 1. The removal of the patient from fresh invasion by the tubercle bacillus and separation so far as possible from all influences aiding its introduction. 2. The establishment in the patient of processes of repair and development of the highest powers of resistance, to which end continuous exposure to fresh air and free access to sunlight, regulated rest, controlled exercise, abundant feeding, obedience to hygienic requirements and strict medical supervision in the instruments employed.

The cases selected should meet the following requirements:

1. Constitutional evidences of disease should be slight.
2. The local involvement must not be extensive.
3. The previous history of the case and the family record should give grounds for believing that there are fair powers of natural repair.
4. The mental and moral condition should be such as will permit of a full acceptance of the educational and disciplinary advantages offered by a sanitarium and the social position such as will allow of a continuance of a reasonably hygienic life after discharge.

In most cases we would consider them favorable when there is an absence of any marked rise of temperature, cachexia, anemia, tendency to night sweats, dyspnea, dyspepsia, or anorexia. A fairly slow and regular pulse of moderate tension is also a good sign. Hemoptysis must not for itself be considered a bar. SHARPLES.

BOOK REVIEWS.

Edited by
KENELM WINSLOW, M. D.

FUNCTIONAL DIAGNOSIS OF KIDNEY DISEASE.—With especial reference to Renal Surgery, Clinical Experimental Investigations. By Dr. Leopold Casper (Prioatdiscent an der Universitaet) and Dr. Paul Friederich Richter (assistent der III Medklinik) in Berlin. Translated by Dr. Robert C. Bryan (Adjunct Prof. Genito-Urinary Diseases, University Med. College, Richmond, Va.) and Dr. Henry L. Sanford (Resident Surgeon, Lakeside Hospital, Cleveland). 233 pp. 8x5½ in. $1.50, cloth. P. Blakiston's Sons and Co., Philadelphia, 1903.

Much interest has been taken and many references have been made concerning the work of Casper and Richter upon functional kidney diagnosis. Their little volume (now two years old in its native language) marks the first appearance in English of anything approaching a thorough presentation of this important subject and none are better qualified to do so than these two scholarly investigators. As pioneers in this field they have given us not only the results of their long study upon the questions involved but an extensive and tabulated list of cases, with history and important data.

The opening chapters deal with the importance of functional diagnosis, the history of renal surgery and the questions which are presented to the kidney surgeon. Methods of examination follow, including, beside the usual physical methods, Actinography, Cystoscopy, Ureteral Catheterization and Palpation of the exposed kidney. Then the methods of functional kidney diagnosis are taken up. These are discussed in the following order: The elimination of nitrogen; elimination of the chlorides; the determination of the molicular concentration of the urine (Cryoscopy); the chemical activity of the kidneys; the toxicity of the urine; the molecular concentration of the blood; the Methylen blue test; the Phloridzin method. The remainder of the book (60 pages) is devoted to the careful report of the cases upon which investigations were conducted. The authors conclude that kidney insufficiency cannot be determined from the urine alone, but that the estimation of nitrogen, together with cryoscopy and the phloridzin test, offer reliable measure of renal function, especially when value is given to the agreement of these indicators. They believe that, owing to the introduction of new methods and of the practice of ureteral catheterization, kidney diagnosis has made marked progress. (Such belief has been amply confirmed in the statistics recently [1903] collected by Casper.)

The authors were aided in their work by two of the leading kidney surgeons, Koenig and Kuemmel, who placed appropriate material at their disposal, and by Senator, in whose laboratory the tests were carried out. The translators have shown great care and accuracy in preparing the English edition. Unlike so many translations, accuracy has not been sacrificed and yet an excellent style has been produced. Perfectly familiar with the subject and intimately associated with the investigations of the authors, they have given an excellent translation.

This little volume is a distinct addition to literature. In no sense a theoretical treatise but a report of practical clinical work, it should be read not only by those interested in renal diseases and renal surgery but by all who would keep in touch with medical progress.

HAWLEY.

PHYSICIANS' POCKET ACCOUNT BOOK.—Published by the Medical Council, 4105 Walnut St., Philadelphia. Bound in flexible leather, 4½x7 inches. pp. 199.

This is a very convenient and cheap little account book which seems to fill all the requirements of a physician's bookkeeping in a single book. There are no hieroglyphics denoting different sums charged for various services, and accounts kept according to the very simple method clearly described in this book, can be readily collected from a decedent's estate or in courts of law.

The accounts are entered as in the form of a ledger daily, each page or—in a section of the book—part of a page, is devoted to a family or single patient, with lined columns for month and day, name of patient, description of service rendered, and Dr. and Cr. columns. There are also sections for cash and obstetric accounts; and much wise and timely advice as how to collect bills, and suggestions for concocting letters to delinquent patients, couched in phraseology so forceful and captivating as to lure the elusive dollar from the reluctant pocket of the ungrateful recipient.

WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

To the Washington State Board of Health for November, 1903

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	*Deaths*	*Cases*	*Deaths*	*Cases*	*Deaths*	*Cases*	*Deaths*
Adams	1	0	0	0	4	0	2	0
Asotin	0	0	0	0	0	0	2	0
Chehalis	0	0	0	0	0	0	12	0
Chelan	0	0	4	0	1	0	6	0
Clallam	0	0	2	0	0	0	0	0
Clarke	1	0	0	0	0	0	0	0
Columbia	0	0	0	0	0	0	1	0
Cowlitz	0	0	1	0	0	0	0	0
Douglas	0	0	3	0	2	1	0	0
Garfield	0	0	2	0	0	0	6	0
King	1	0	7	0	0	0	3	0
Kittitas	0	0	5	0	0	0	0	0
Klickitat	3	0	0	0	0	0	0	0
Lewis	0	0	2	0	0	0	0	0
Lincoln	2	0	2	0	0	1	0	0
Skagit	15	0	0	0	0	0	0	0
Snohomish	0	0	1	0	0	0	3	0
Spokane	0	0	12	0	4	0	11	0
Thurston	0	0	1	0	0	0	0	0
Walla Walla	0	0	12	0	0	0	2	0
Whatcom	1	0	0	0	0	0	4	0
Whitman	0	0	2	1	0	0	0	0
Yakima	0	0	5	0	7	0	41	4
Seattle (City)	0	0	28	0	6	0	17	4
Spokane (City)	4	1	16	1	16	2	44	7
Tacoma (City)	0	0	4	1	0	0	0	0
Total	28	1	109	3	40	4	154	15

MEDICAL SOCIETIES.

Name. Meetings Held.

Washington State Medical Association..................1904—Seattle
President, F. H. Coe, M. D.; Secretary, A. H. Coe, M. D.

Chehalis County Society ....Second Tuesday—Aberdeen
President, D. A. Schumacher, M. D.; Secretary, J. W. Scamell, M. D.

King County Society ....First and Third Monday—Seattle
President, J. P. Sweeney, M. D.; Secretary, Carl Hoffman, M. D.

Pacific County Society ....
.............Third Monday of Jan., April, July, Oct.—South Bend
President, G. W. Overmeyer, M. D.; Secretary, Mary W. Gunwell, M. D.

Pierce County Society...........Second and Fourth Tuesday—Tacoma
President, Hamilton Allan, M. D.; Secretary, George McGeer, M. D.

Skagit County Society ....
President, F. B. West, M. D.; Secretary, C. C. Harbaugh, M. D.

Snohomish County Society..................First Thursday—Everett
President, W. C. Cox, M. D.; Secretary, C. B. Betts, M. D.

Spokane County Society....................First Thursday—Spokane
President, C. S. Kalb, M. D.; Secretary, Geo. A. Gray, M. D.

Walla Walla County Society.........Second Wednesday—Walla Walla
President, N. G. Blalock, M. D.; Secretary, Y. C. Blalock, M. D.

Whatcom County Society ....Second Monday—Whatcom
President, C. L. Holt, M. D.; Secretary, F. J. Van Kirk, M. D.

Whitman County Society ... .Oct. 2—Tekoa
President, G. B. Wilson, M. D.; Secretary, E. Maguire, M. D.

Yakima County Society..............First Tuesday—North Yakima
President, T. B. Gunn, M. D.; Secretary, David Rosser, M. D.

Oregon State Medical Association.....................1904—Portland
President, W. T. Williamson, M. D.; Secretary, L. H. Hamilton, M. D.

City and County Medical Society of Portland...First Wed.—Portland
President, C. H. Wheeler, M. D.; Secretary, A. D. Mackenzie, M. D.

Multnomah County Medical Society..........First Tuesday—Portland
President, E. M. Crockett, M. D.; Secretary, L. Victoria Hampton, M. D.

Montana State Medical Association.......................1904—Butte
President, T. J. McKenzie, M. D.; Secretary, B. C. Brooke, M. D.

Silver Bow Medical Society....Second and Fourth Wednesdays—Butte
President, T. J. Sullivan, M. D.; Secretary, Grace W. Cahoon, M. D.

Idaho State Medical Association........................1904—Lewiston
President, J. L. Conant, Jr.; Secretary, E. E. Maxey, M. D.

Northern Idaho District Medical Society.............June 9—Lewiston
President, C. L. Gritman, M. D.; Secretary, C. D. Parsons, M. D.

Southern Idaho District Medical Society.................July—Hailey
President, W. E. Hargrave, M. D.; Secretary, R. E. Smith, M. D.

British Columbia Medical Association...............1904—Vancouver
President, O. M. Jones, M. D.; Secretary, W. D. Brydone-Jack, M. D.

Vancouver Medical Society ....Vancouver
President, A. P. Proctor, M. D.; Secretary, J. S. Conklin, M. D.

New Westminster Medical Society.Fourth Thursday—New Westminster

Corrections and additions to this list are requested from societies reached by this journal.

SEATTLE NURSES' BUREAU

If you need the services of a Graduated Nursecall on the Superintendent

MRS. A. W. HAWLEY

1115 Madison Street, or Phone John 411, and she can supply you on short notice.

Graduated Nurses' Association

NAME.	QUALIFICATION.
BEAN, MISS ALTA	Graduate Grace Hospital, Detroit.
BECHDOLT, MISS MARGARET	Graduate Seattle General Hospital.
BLASHFIELD, MISS ELLA	Graduate U. B. A., Grand Rapids, Mich.
BARR, MRS. EMMA L.	Garduate Mt. Sinai Hospital, New York.
BUTTON, MISS AGUSTA	Graduate Seattle General Hospital.
BAKENHUS, MISS MELINDA	Graduate Bethesda Hospital, Chicago.
BENDER, MISS JULIA M	Graduate Eastern Illinois Hospital.
BRYSLAND, MRS. LILLIAN	Gradate Seattle General Hospital.
CROWL, MISS FLORENCE I	Graduate Seattle General Hospital.
DAM, MRS. EVA L	Graduate Seattle General Hospital.
DE VECKMON, MRS. E	Graduate Seattle General Hospital.
FREMMING, MISS THORA H	Graduate City and County Hospital, St. Paul.
FEEHAN, MISS ANNA	Graduate St. Joseph's Hospital, St. Paul.
MISS ROSE FINDLEY	Graduate Victoria Jubilee, Dominion General Hospital, Kingston.
GILLISPIE, MISS CORA E	Graduate Illinois Training School for Nurses.
GREEN, MRS. ANNIE G	Graduate Good Samaritan Hospital, Portland.
GREGG, MISS MINNIE	Graduate Women's Hospital, Syracuse, N. Y.
HUGHES, MISS M. A.	Graduate Dublin General Hospital.
HUBBS, MRS. F. H.	Graduate Philadelphia Hospital.
HERDMAN, MISS LILLIAN E	Graduate Seattle General Hospital.
HEMPEL, MISS CLEO	Graduate Colorado Training School, Denver.
HUMPHREYS, MISS ALICE HOYD	Graduate Fabiola Hospital, Oakland, Cal.
KENNEDY, MISS	Graduate St. Luke's Hospital, Duluth; Sloan Maternity, New York.
LACKORE, MISS LILLIAN	Graduate Wesley Hospital, Chicago.
LAEMMERICH, MISS LOUISA	Graduate Winona General Hospital.
LIVERMORE, MRS. AGNES B	Graduate Minnesota Training School.
McGREGOR, MISS HATTIE	Graduate Seattle General Hospital.
NEWTON, MISS G. W.	Graduate Royal Jubilee Hospital, Victoria.
RAY, MISS JENNIE	Graduate Seattle General Hospital.
SHROEDER, MISS H. L.	Graduate Seattle General Hospital.
SLATER, MISS GRACE	Graduate Eastern Illinois Hospital.
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